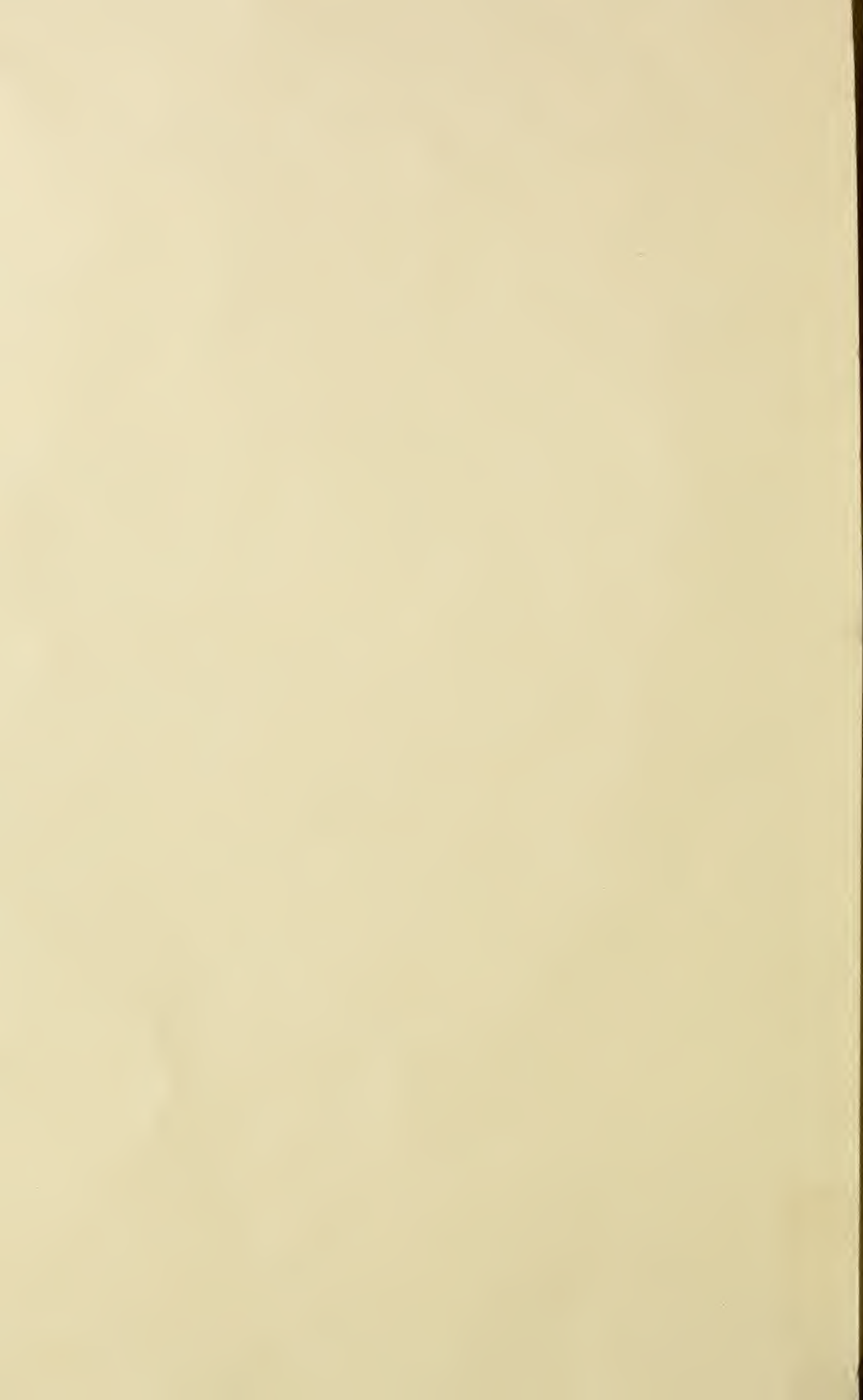


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THE MARYLAND FARMER

—DEVOTED TO—

Agriculture, Horticulture, Live Stock and Rural Economy.

The oldest agricultural Journal in Maryland and for ten years the only one.

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FARMER'S GATHERINGS.

As a means of improvement, as one of the elements of the farmer's success, no single influence can equal that of the farmer's meetings for the discussion of previously chosen subjects. The Farmers' Club of the *New York Tribune*, and the Farmer's gathering at the *Massachusetts Ploughman* office and others, have demonstrated the value of these on a large scale; while the Deer Creek Club and Sandy Spring Convention and similiar societies in our State, have shown how great an interest may be created by these discussions wherever they may be held.

We believe could these gatherings be established throughout our State, in every town, or village, or, even in every school district, a great deal would be accomplished in the way of making agricultural pursuits more prosperous and farmers more generally respected; but in order to reach the best results these meetings should be open and free to all, and for the discussion of such points as may be most useful to the general public. Such a gathering in each school district once a month, would be a pleasant as well as profitable occasion.

It might take the name of a Club and have its presiding officer with its associate

organization, and appoint at each meeting the subject for discussion at the next gathering, so that each could come with mind prepared for the occasion. We would hail with gladness the creation of such bodies of farmers in every part of our country, for the dissemination of just ideas on all farm topics.

And let these gatherings be for the great public, for farmers and their families, that the social element may enter into them to enhance the enjoyment.

Such organizations should welcome all—men, women and children to their meetings at all times, and discuss the best methods of farm work, the best care of various kinds of farm stock, the best mode of cultivation of different crops, the best time to market produce, the best articles of agricultural machinery, and all kindred subjects. These organizations reach all the farming community; and the lessons learned there would be readily appropriated and reduced to practice.

Let every full moon witness all through our country towns such gatherings as these, and not many years would elapse, before the general intelligence and enterprise of our people—already so great—would be tenfold greater. The Farmers' association would become an art and a

science, and success would wait upon him as surely as day follows the night.

Nothing would please us more than to be able to record monthly, a goodly list of such gatherings. Organize the Farmers' full moon clubs and welcome all to the enjoyment they have in store for you.

To the Editor of the Maryland Farmer.

VARIOUS FARM TOPICS.

Of first importance is it to have pure air in the stables, either for horses or cows. Yet, there must be warmth. A filthy stable and unventilated, is sure to produce disease sooner or later, and an unhealthy animal is poor property.

It would be much more sensible if farmers would salt down and "cure" more beef for summer use, and less pork.

An exchange remarks "there is no better feed for milch cows than beets." Feed a cow on beets without stint and without other variety, and see the error of the statement. Root crops we consider excellent for stock, but just as the dessert or sauce is excellent for our own use—to be taken in small quantities and as an appetizer or condiment. The best effects result from roots, as regulators of the digestive system, and for this, if for nothing else, they should form a part of the winter feed.

There are various methods for relieving choked cattle. Here is one: Get a hickory stick about 3 feet long, and 1½ inches thick. Form a handle at one end and concave the other, so as to hold the potato or other obstacle to be removed in the centre of the throat. The stick should then be worked down to ⅔ of an inch, so as to be flexible. With two men holding the animal by the horns and nose, and another to carefully insert the stick and push down the obstacle, it will usually be removed.

If every owner of a horse would make a careful study of the horse's foot, there would be fewer lame horses in the country. When the owner doesn't know and the blacksmith doesn't care, the result of shoeing is (not always) unfortunate. There

are some blacksmiths who thoroughly understand their business; there are many who don't, and these are especially the apprentices who, when promoted to wear the apron, are full-fledged blacksmiths, and ready to—lame any horse. As a rule, the less cutting and rasping there is done on the walls of the hoof and the frog, the better. And a blacksmith who drives a nail where it ought not to be, should be prosecuted. They should be held responsible.

Keep hens, but keep them. Don't let them take care of themselves, especially in winter. They can be made to be profitable property, but they must have good care, enough to eat, warm quarters, fresh water, bones for shells, and be kept free from vermin. If you keep poultry, keep it on business principles; have some system about it, and *make* it pay, then it *will* pay.

AGRICOLA.

To the Editor of the Maryland Farmer.

OUR FOREIGN LETTER.

PARIS, December 26.

M. Georges Ville is the champion of mineral, or rather chemical manures, as a means to emancipate agriculture from a dependence on farm yard, or straw manure. This implies agriculture without forage or stock; or, the relegation of cattle to pasturages, and no centralization at the homestead. It is the separation of the processes for the production of meat and vegetables, whose junction necessitates an investment of capital estimated, in France, at from 400 fr. to 500 fr. per acre. The aim of this united industry is to produce nitrogen from the atmosphere, that indispensable, and at same time costly, ingredient in the nutrition of crops. Commerce can readily obtain those mineral ingredients of plant-food—potash, phosphates, soda, lime, etc., which with nitrogen are the most important elementary food substances.

It is not astonishing then that scientists should concentrate their attention on securing a supply of nitrogen for agriculture. The best straw manures, in their ordinary humid state, do not contain more than 8 lbs. per ton. Hence, why manufacturers of chemical fertilizers labor to produce manures in such a form, that their fertilizing riches is represented by

the standard of 65 to 100 centimes per lb. for their azote. But the manufacturers are kept within bounds by the farmers themselves producing nitrogen in the shape of shed manure, from stock fed on rich rations.

There are the systems of culture first by farm yard manure alone, and second, the same, complemented by chemical fertilizers. M. Ville now advocates agriculture by chemicals alone. He calls his plan Sidereal cultivation, a word borrowed from astronomy, and not inappropriately, as meaning that his mixtures operate for a fixed or complete period, like a Sidereal or fixed star, which daily returns to the same point in the heavens after completing its diurnal revolution or work.

M. Ville is not a tyro; for over thirty years he has been zealously occupied growing cereal, leguminous and root crops in his laboratory, and simultaneously controlling the results of the class-room on experimental plots of divers soil. The expense is defrayed by the authorities with that generous liberality which the French government alone, apparently, possesses the monopoly. But Ville is only following in the footsteps of Messrs. Lawes and Gilbert who, at Rothamstead, have demonstrated by their experiments the possibility of obtaining large yields of produce by substituting chemicals for dung.

Professor Ville seems to think that farm yard manure, in many cases, ought to be rather a hindrance than a help to successful culture. For him the Gordian knot of remunerative farming is the securing of nitrogen cheaply. And where can it be so obtained? In the atmosphere. And how? By cultivating clovers, those grand absorbers and accumulators of aerial azote. Such is his solution of high farming for the future. The farmer has then only to buy phosphates, potash and lime. Nature supplies nitrogen free.

The pivot of M. Ville's system turns on the power of leguminous plants to fix atmospheric azote. Now nothing is less certain, following many of the best scientists. Yet he estimates that an acre of land absorbs 218 to 297 lbs. of nitrogen from the air. It ought not to be difficult to test, say on poor lands, if a "clover fallow" is really a field-manure heap, generating azote, almost freely, at the expense only of the atmosphere.

M. Ville's experiments are not fantastical. Nor is there anything exactly new in raising crops of corn successively on the same land, without any manure at all. The ancients did so in Sicily, Italy and Africa—but permanently injured the land. Soils have been exhausted from the continuous growth of tobacco, sugar and vines. Then there are the experiments of the Rev. M. Smith, of Lois Weidon, the successor of Jethro Tull, who for years has reaped profitable crops of wheat in succession from the same land, without a particle of any kind of manure, by stirring the soil well and relatively deep, and sowing at wide distances.

But Professor Ville's system is not that. Also, if it pays some farmers, by the low cost of production simultaneously with conserving the fertility of the land. Bous-singault, Liebig, and other scientists not with standing, that is the most conclusive of answers; for the result of all experiments is, does it pay?

Again, the Professor does not dispense with manure: he can produce 39 bushels of wheat per acre with his fertilizers, while the same land, receiving no manure, yields but 22 bushels. In both instances the soil was tilled to the depth of 8 inches, and the wheat sown in lines.

To the Editor of the Maryland Farmer.

MAKING AND APPLYING MANURE.

As manure is the main reliance to him who wishes to cultivate land for profit, this would be a timely season to discuss this question in the columns of the FARMER.

I believe in *manure*, and believe in making as much of it and as good and rich as I can. For that purpose I gather all the leaves, and bed all the straw, and feed all the rough feed and good feed I can, and all the mill feed and oil meal I can profitably buy.

The clover hay and purchased feed is fed to milch cows, and the rough feed is fed, with the addition of some mill feed and corn chop, to the young cattle. Therefore, I have two kinds of manure—one kind just from the stables, and which I apply as fast as made on the wheat field that I fertilize with 300 lbs. of good qual-

ity of fertilizer per acre, when putting in the wheat in the fall; this gives me a good crop of wheat, averaging for the last five years 28½ bushels of prime wheat per acre, and a good stand of grass—so heavy in fact, especially in a wet season, that I am enabled to cut a ton or more per acre in September off of the same, and oftentimes of very good quality, and this pays well even with 90c. wheat.

The yard manure, as well as the manure made from the stables in the late winter and spring, I mix all together in great heaps with plaster and kainit sprinkled through it, and this compost I apply as far as it will go to my first field of wheat, put in early in the fall. When manure gives out I use a good brand of fertilizer and top dress in the winter, as I have previously said. By this way of working I save

1st. A great amount of unnecessary handling; the bulk of it is applied in the winter when work is slack and labor cheap.

2nd. This manure keeps the wheat warm in winter, and the young grass well protected in the summer, and however heavy the wheat may be I always have a good set of grass.

3rd. My capital is actively employed, paying interest right along, which it would not do if locked up in immense piles of manure for six months and exposed to the rain and snow.

4th. My soil is becoming filled with grass roots, and having that dark, mealy texture that will keep the crop growing in the face of a drouth, and it will produce a good crop of corn without anything but thorough work.

5th. Whilst I find fertilizers reliable, if made by honest manufacturers, and oftentimes of great benefit, they will not alone pay a profit above all expenses, taking the average years through, but should always be used in connection with barn yard manures.

Now some of the large wheat growers, who annually put in 100 and 200 acres each year, will laugh at this, and say: how far will manure go with them? But it is quality as well as quantity we are after, and if 30 acres can be made to yield by this system, and keep the land improving at the same time, as much as 60 acres, as ordinarily treated, it pays well to do it.

Let anyone try this way intelligently on only one acre, and he will be convinced before this time next year. Facts are what we are after, not theory—gold, and not coppers.

Plains Farm.

F. SANDERSON.

EDUCATED FARMERS.

The following article, which recently appeared in the *Scottish Agricultural Gazette*, should commend itself to every intelligent farmer. It is just as applicable to this country as to Scotland. The wide awake, progressive young farmers in our country, are those who take and read understandingly the publications which refer to their work. The successful ones are those who use their minds as well as their hands. Crops are secured by improved methods, gathered from the agricultural magazines and papers, much more easily than in the old plodding ways of our forefathers. Read and profit by the reading.

Our most successful farmers are not those who work hardest at manual labor; they work, nevertheless, with all their energies. None are exempt from labor; but in all it is not equally well applied and directed. If we take any two men, physically equal, the one will accomplish most who excels in brain-power. Therefore, let that small enclosure within his own skull be cultivated as assiduously and as carefully by the farmer as is his choicest crop. Whatever farming may have been in the past, the time has come when the highest intelligence is demanded as a necessary qualification on the part of the agriculturist.

Book-farming, however, is derided, and "farmers are not a reading class." We, on our part, neither underrate the practical knowledge, nor overrate the importance of the scientific study of farming. The one is needful to the other, and science is futile if it does not help practice to do its work better and cheaper. But there is one great want in most of our farm-houses, and that is the almost entire absence of agricultural literature, both in book and periodical form. The volumes one most expects to see on a farmer's table are gene-

rally conspicuous by their absence; and, will it be believed, there is many a farmer who does not take an agricultural newspaper. Boys and girls grow up on the farm, and spend those years which will so much influence their future lives without ever once being led to realize the momentousness of what is before them. They grow up, too, without a taste for reading, and so miss a never-failing source of happiness, not to speak of mental culture and refinement. For all this, the want of suitable books and papers on the farmhouse table is to be blamed. The bodily toilers come in thoroughly wearied, and often with a longing for relaxation of some kind; but there is no paper, and no interesting volume that they can turn to, and so they live within themselves, as it were, and, in too many cases, sleep away their existence.

But just let the young farmer think for a moment of the forces, the properties, principles, influences, the laws—developed and undeveloped—with which he must come in contact, and understand if he would succeed. So far from being less dependent upon the arts and sciences than those engaged in other occupations, the farmer stands in need of a far wider range of knowledge than is requisite in almost any other business. And farming need not prove the unvarying round and monotonous life it is often said to be; for every operation on the farm is an incentive to inquiry and stimulant to thought. Men of one idea can not succeed in farming, and those engaged in it, the young especially, should lose no opportunity of adding to their present stock of ideas by reading, by investigating for themselves, and through intercourse with others.

A BIG CABBAGE FARM.—The most extensive cabbage farm in the world is near Chicago. It consists of 190 acres in the "cabbage district," as it is called, which comprises 2,500 acres of rich, heavy soil, especially adapted to cabbage culture. It requires 1,114,000 plants to set the 190 acres, and counting those used in resetting, 30,000,000 for the whole district under cultivation. The bulk of the crop is sent south in box cars to supply a demand which exists after the consumption of the southern crop, which, owing to the climate, cannot be stored for future use.

To the Editor of Maryland Farmer.

COMPOSITION OF PLANTS.

Plants of the same kind have approximately the same composition; the relative proportions of the different elements that enter into the composition of different plants are very nearly the same in the same species. And though grown upon different kinds of soil, and under different conditions, the ashes of the same kinds of plants are very nearly the same in chemical composition. Though there may be a lack of some particular element in the soil, such variation cannot be large enough to affect very essentially the ash of the plant or its value as an article of food.

Any of the grains if produced at all must come up very close to a given standard of composition; that is, must possess a given quantity of the elements necessary to their growth. The law of nature was formed with a full view of what would be required, and if corn or wheat could be grown without the aid of nitrogen or ammonia, they would then lack one of the most essential elements of nutrition; that is, the power of renewing the blood, nervous tissues and muscular fiber. Or if plants could grow successfully without the aid of phosphoric acid, there would be no substance with which to form bones. Wheat grown in Pennsylvania would be no different in composition from that grown in Egypt, or any part of the world. A knowledge of the nature of these elements, and the quantity necessary for a given crop being ascertained, the providing of them is almost as simple as the providing of the raw material to be used in a factory in the manufacture of any kind of textile fabrics. The farmer should learn, if possible, sufficient regarding those substances contained in the soil, to determine when they are fertile and when barren.

Methods employed for fertilizing the soil, so as to produce profitable crops, vary in different countries, and also in different parts of the same country. All farmers know that by the use of manures there is a mysterious power that aids the growth and enlarges the production of crops.

But it is necessary, if possible, to have so accurate a knowledge of the constituents of different plants, that it may be known

what is going to be produced, in order to set to work in an intelligent manner to produce it.

Plants that are cultivated for the use of man may be classified as follows:

1. *Potash Plants*, or those whose ash contains more than half its weight of potash and soda; among which are indian corn, beets, turnips and potatoes.

2. *Lime Plants*, the bulk of whose ash is made up of lime and magnesia; such as beans, peas, clover and tobacco.

3. *Silica Plants*, or those in which silica is largely predominant; among which wheat, rye, oats and barley are found.

Chemical analyses have given tables of the composition of grain and straw, a study of which furnishes a key to the knowledge of what is needed in manures in order to produce any named crop. It will also instruct in the philosophy of a rotation of crops, and a selection of those suited to the land and manure at hand.

Columbia, Conn.

W. H. Y.

THE WILNA FARMERS' CLUB.

DISCUSSION ABOUT FENCES—WIRE FENCES CONSIDERED THE CHEAPEST.

The Wilna Farmers' Club met on Wednesday of last week, at the residence of Amos B. Hollingsworth.

The subject for discussion at this meeting was "Fences."

Mr. Amos B. Hollingsworth thought the question was one that should interest farmers. Fences were necessary but expensive. He had on his farm nearly a mile of osage orange hedge. It was an ornamental fence and on this account he liked it, but there were objections to it. It required much care and attention to keep it from growing "wild," and drew heavily from the soil. He objected to wire on account of its being dangerous to stock.

Geo. W. McComas had a kind word for the farmers' old friend, the worm fence, and thought it the most durable of all fences.

The prevailing opinion of the club was that wire would in the future to a great extent supersede all other fences. Most of the members had put up more or less wire fence on their farms and were pleased with it. A decided preference was shown for

the "buckthorn" over the ordinary barbed wire, the latter being considered far more dangerous.

DEER CREEK FARMERS' CLUB.

The December meeting of the Deer Creek Farmers' Club was held, on Saturday, 19th instant, at the farm of Wm. Munnikhuysen, near Thomas' Run.

Mr. Thomas Lochary was called to the chair in the absence of the President.

The subject selected for discussion was "The Winter Care of Farm Stock."

Mr. Munnikhuysen said that the farmers of Harford, had made, within the last few years, quite as great an advance in caring for stock during winter as in general farming. Stock should be kept comfortable, but stables should not be made as close as many farmers supposed. Stock kept in stables that are too warm are liable to take cold when turned out. He had had some experience in feeding sugar corn fodder and believed it might be advantageous to farmers to grow it for stock. Cattle will thrive better on it than on any other fodder and much less of it will be eaten by them. It is also excellent for horses and hogs. The experience of his tenants, would appear to show that too much working stock is generally kept on our farms. With two little mules they had worked 12 acres of sugar corn, 28 acres of field corn, cut 12 acres of hay, harvested 50 acres of wheat and worked one acre of potatoes. This fall they also sowed 33 acres of wheat. They had only hired an extra horse while hauling out sugar corn. These mules, besides, had hauled coal and wood. They were and are going constantly and keep fat. Sheep require only shelter from the wind and rain.

John Moores.—To make stock profitable they should be well wintered. It is important to have fodder and hay well cured and carefully put away. Many farmers make a mistake in not beginning to feed their stock early enough in the fall. They wait until the pastures fail and their animals begin to go back before they commence feeding them. Fodder should be fed liberally to cattle early in the fall. The latter part of November give them all they can eat. In feeding, the day should

be divided as nearly equal as possible. The first feed should be as soon as it is light enough to see in the morning. He uses both cistern and pump water, but thinks that in excessive cold weather the cistern water is too cold for cattle. The difference between wintering in stables and in the field is not so much as is generally supposed. Last winter he kept some cattle on an old sod until February, then brought them to the barn-yard. On the 20th of April they were turned out on grass. They gained 550 lbs. apiece. Cattle get a good deal of grass in the field during winter. He did not think they damaged an old sod during the winter. He feeds some cattle in stables, in order to have them ready for sale early. Their food should be changed occasionally. Sometimes they will relish straw, after having been fed on hay, but there is no nutriment in wheat straw. Clover hay is the best feed for cattle.

Geo. E. Silver thought it important, first, to have good kinds of stock. Then give them plenty to eat. Cattle should have shelter from high winds and heavy rain storms. He was likewise of the opinion that there is not much difference in favor of feeding in stables over feeding in open air. Exercise is of great importance and this they can get in the stable yard, and besides they have access to water when they want it. In fattening cattle in stables it is necessary to keep the stables clean and sweet, and to do this they should be cleaned out every day. There should be plenty of ventilation but the cattle should not be exposed to drafts of air. Sheep require plenty of room and air, but should be kept dry. In the lambing season, especially, they should have dry quarters. Cattle should be fed regularly. Sugar corn is more fattening than field corn, but the yield is more uncertain and the fodder more difficult to cure than field corn. Young stock should be looked after carefully in winter and be kept under sheds. To make them profitable they should have food enough to keep them increasing all the time. Many farmers keep too much work stock, but it is better to have one horse more than one less than you want, because often you cannot hire an extra horse when needed.

Hargrave Spalding thought it especially necessary to have good covering for young

stock, and to secure provender in good condition. Feed regularly, early in the morning and late in the evening. Sheep require very little shelter except in the lambing season. It is well to have a shed for them to run under in stormy weather.

Judge Watters said that wintering stock was more than half the battle. In summer they will take care of themselves. It seems reasonable that stock will thrive better when well sheltered than when exposed to the cold. Many farmers think working stock need no grain when not at work, but his idea is to feed the same when not working as when working. Then when spring comes your stock is strong and ready for work. It pays to shelter and feed your stock well. He thought feeding too much hay was one reason so many farmers' horses have heaves.

Thomas A. Hays believed in keeping stock in good condition all the time. They should be fed well, whether at work or not. They will work better and when called on they will respond. He believed in sheltering all stock, and it is important to have stabling well ventilated. Ill ventilated stables are particularly dangerous for cows with calf, being, sometimes, the cause of abortion. Cattle should be allowed to run in lots on nice days. Sheep need shelter, and hogs, particularly, should have good quarters. Plenty of water is important, and cisterns are more economical than any mode of supply except flowing water. Regularity of feeding is a big item. It is wrong to excite cattle by going around them while they are being fattened. A change of food occasionally is desirable.

James Lee's opinion was that there is as much in feed as in shelter. If kept in stables cattle should be fed as much as they will eat or they won't pay. Two years ago he had 18 head in stables and gave each one a quart of meal a day. They fretted all the time and weighed no more in the spring than when they were put up. They did not do as well as other cattle that were kept out and not fed on meal. He has had gain of 80 lbs. a month on steers fed in the stable, but the average last year was 50 or 60 lbs. Cattle will lose in weight the first month or two after being stabled. He had that day stabled his cattle. He weighed them before and after they drank and found a difference of 49½ lbs. per steer, after drinking.

A member remarked that water seemed to be a better feed than sugar corn.

Mr. Lee thought it best to feed working stock well during winter, so as to have them strong when required to work in the spring.

R. Harris Archer did not think shelter absolutely necessary to grown stock cattle. He had made more clear money on cattle that never saw the stable or even a barn yard than on those stabled. When fed in the stable you can not tell what they cost. If stabled they should be full-fed, as Mr. Lee said. If you have a lot of cattle in the stable and not enough pasture for all, you had better feed all alike. All will not fatten equally and next spring the best can be picked out and sold and the remainder fattened on grass. Mr. Archer thought a great deal of hay is wasted in feeding horses. Corn is worth the same as hay, \$12 a ton, and it is economical to feed more corn and less hay. Corn is the cheapest feed for any stock. He thought, also, that farmers keep too much work stock.

Wm. D. Lee was in favor of stabling all stock and giving all some grain. One advantage in feeding grain heavily to cattle in the winter is that they are ready to sell whenever you choose and early in the season you get a better price for them. It don't pay to stint working stock even in winter when not at work. Feeding ought to be commenced early in the fall.

The President asked how many sheep could be kept on the food required for one steer.

Mr. Lee thought 4 or 5. Mr. Silver said the number was generally estimated at 6. Mr. Moores said he had fed 8 sheep last winter and they ate no more than one steer. The profit on these sheep in lambs and wool was \$100.

Bennett H. Barnes shelters all of his stock, and thought the amount of feed required to keep an animal alive without shelter would put flesh on it if protected from the weather. Cows cannot be kept at all with profit unless warmly sheltered. It is a bad plan to keep stock on half rations. He prefers pure timothy hay for driving horses. For working stock mixed hay is best. He had been feeding working stock for a number of years on meal and bran and finds that only one-half the amount of grain is required when ground.

He feeds his horses chop two or three times a week and dry meal and bran the rest of the time.

Edward P. Moores thought it looks humane and makes a man feel comfortable to know that his stock, particularly his horses, are well housed. He thought horses ought to have a good deal of hay. Hogs should have warm houses, but sheep only need protection from rains. He was decidedly in favor of wintering cattle in the fields. Give them a straw rick and all the fodder they can eat. Keep them out until the ground begins to get soft. There is no profit in keeping them in stables unless you feed them well and fatten them so as to sell early in spring. As to feeding cattle very early in the morning he did not believe in waking them up to get their breakfast.

Wm. F. Hays was in favor of stabling cattle and full feeding them. Scrub cattle won't thrive in stables like cattle of a good class. The nearer animals approach thoroughbred the more sense they have, the quieter they are and the better they will thrive in stables. He had used cooked food with success in wintering hogs. He had also found roots good for stock cattle, and was opposed to wintering cattle in the field, especially on low meadows, believing it injures the grass. Stables should be kept at a regular temperature, and he had found that some of his cattle, which are kept in a stable that he considers too warm, do the best. They should be turned out every day to get water. He feeds them a little sulphur towards spring. It pays as well to curry a steer as a horse.

John Moores thought currying cattle makes them quiet and contented, that being its chief value.

Mr. Hays, resuming, said it is better to mix the feed for cattle. If you have nothing but corn, sell some of it and buy oats or mill feed.

Judge Watters remarked that while oats is good for driving horses, or for cows giving milk, or to give young cattle muscle, it is not good for fattening cattle.

Mr. Moores thought one-fourth oats with corn and cob meal makes a nice feed for cattle.—*Egis and Intelligencer*.

KNOW THYSELF by reading the "Science of Life," the best medical work ever published, for young and middle-aged men.

PROGRESSIVE FARMERS.

The young farmer of to-day says, "Life is short, and, as a progressive farmer, I must drive ahead and make the most of it." Then, how does he proceed?

Years ago his good father and mother commenced very humbly the farmer's life. They managed economically until they could secure and pay for a small piece of ground, with rude buildings and but slight improvements. For a long time bare floors were the rule; and honest toil for weeks, and months, and years, brought in slowly, but surely, the necessary means to purchase more and better land, more and better stock, and a greater amount of the comforts of life. In their old age they have, perhaps, many enjoyments, and even luxuries, as the result of their toil, and care, and good management. Does the young "progressive farmer" of to-day copy any of this experience?

How often, in all the various occupations of life, does the young man expect to commence with all the advantages which years of toil have barely sufficed to bring to his elders. He thinks it a great hardship to be forced to undergo what he calls the drudgery of working for what he wants. He must enjoy every comfort, every luxury that his parents have won by sturdy labor, and have a life of ease and leisure before him. His wife, too, must be wholly relieved from the ordinary cares of home work, and have every whim gratified to its full.

The young farmer, especially if he calls himself "progressive," occupies this position. His farm must be as large, as fertile, as productive in the beginning, as is his parents at the close of their life. He must have as fine stock, as fast horses, as rich a "turn out" as his neighbors who have labored forty years, or more, to secure theirs.

These things are the ruin of a great many young men as farmers. They can-

not realize at once all these things and they straightway desert the farm. They seek in some other occupation to secure them more speedily than by the regular method of patient toil, strict economy, with constant watchfulness and careful management. But the rule is the same in every occupation and pursuit. There is no royal road to the blessings and comforts of life. It is close attention and faithful labor that wins; it is the steady gait that consumes the road, and is sure to reach the goal.

We would warn the young farmers then that a "progressive farmer" does not mean one who commences at the top, lives fast and high, revels in the luxuries of life, outstrips his fellows on the road, spends lavishly, and finally ends at the bottom. The "progressive farmer" is one who commences at the bottom; learns patiently the meaning of personal labor; keeps his eyes open and his mind clear to see every improvement that will help him; takes advantage of all the aids in machinery, of all the advance in breeds of stock, in fruit, in grain, in vegetables; learns and practices the best methods of cultivation of his fields; spends less than his income; and thus gradually mounts the ladder and reaches the top.

Thousands of young men and young women, who are moping away an already disappointed life in city and village, might commence now this life of the progressive farmer, and long before old age arrives be at that position where they could enjoy life's best comforts and blessings. All they need is to bear always in mind that the real good they are seeking comes from the patient exercise of the powers they possess in common with all others; and they have in their keeping all that is necessary of labor, of industry and of self-cultivation to accomplish all they have desired.

To the Editor of the Maryland Farmer.

CORN SMUT.

A great many farmers have wondered about corn smut, its cause, origin and remedy; and a great many more never give it a thought. It is a fungus growth producing spores which are spread by the wind, by cattle which have fed on the fodder, and also by the spores adhering to the seed sown. I also believe it can be produced without any of the foregoing conditions. I have on one occasion put a new field in corn, which had just been cleared of the timber. I soaked the seed in copperas and brine, which certainly killed the smut germ; but when the corn eared, it had more smut in it than any of the other fields. Now I contend, that the smut in said field and in most cases in other fields comes from injuries to the young growing corn through single trees, the horses' feet, the lines, the cultivator handles, while working it by making abrasions and bruises at the joints, where the future ear is to form, which abrasion or crack lets in the water from rains, etc., which causes the grains to swell and burst, which afterward forms the fungus called smut.

A great many know the foregoing, but fewer know that smut will produce abortion in animals, when eaten in sufficient quantities. In 1869 several cases came under my own observation, and I have cause to remember it. I noticed a great deal of smut in a certain field belonging to me, and gave the men orders to pull all smut ears, while husking, and throw them out to keep them from going into the fodder. After the field was cleared of the corn and fodder, one day the horses and cows got into it (the bars having been left open) and picked up the smut ears, they having some grains of corn at one end. In consequence (at least I always believed so) the following night a brood mare lost her colt, and also three very fine cows their calves.

To destroy Smut.—While husking break off the smut ears, throw them on the place where the corn shock stood, and when going home at night take a bag and put them in; put them in a box or pit, or pile and cover with caustic lime, or sprinkle oil of vitriol over them, or cover with wood ashes. But under no consideration let

them lay in the field for cattle to pick up.
Lauraville, Md. G. K. S.

BUSINESS IN THE SOUTHERN STATES.

Southern papers report a continuous and rapid development of manufacturing industries of various kinds and a general revival of business. *Dixie*, an intelligently conducted monthly journal, gives a summary of Southern enterprises which shows that Southern men are now fully alive to the great natural wealth and advantages of their part of the Union. We judge from its report that Alabama is making more rapid progress in manufactures than any other Southern State. Birmingham, its iron and steel centre, had four thousand people in 1880, and has now over twenty-one thousand. Its taxable property was seven hundred and forty-seven thousand dollars in 1880, and is now four and a half millions. Besides its furnaces, it is to have large flouring mills, and a plant for making cotton gins on a large scale. In Mobile they make now lumber, staves, barrels and wooden ware. The mills are busy and the port is full of ships loading lumber. Formerly they loaded only cotton there.

There are, it seems, in the Southern States one hundred and thirty-nine cotton-seed mills. In 1866 there was not one. In Tennessee they have struck oil and developed some natural gas wells. At Galatin they are manufacturing chairs; at Clifton spokes and barrels. At Columbia, in South Carolina, "is the only factory in the United States," says *Dixie*, "which produces genuine Vienna bent wood furniture." In Florida they have begun to compete with Glasgow in the manufacture of marmalades and jellies, and they raise their own oranges, which is an advantage, and they find it profitable to raise castor beans and make them into oil.

Finally, *Dixie* reports:—"It is noted that the advance of one dollar and fifty cents per ton in the price of pig iron has set all the furnaces of Tennessee and Alabama going on full time. Indeed, some of the Southern ironmasters are far behind their orders. The difference between North and South in cost of production is about six dollars per ton in favor of the latter;" and *Dixie* adds this significant item:—

“Two furnaces will be removed from Pittsburg, Pa., to Sylacauga, Ala., where a site has been purchased, and a branch road eight miles long will be built from there to Childersburg, Ala.”

Plainly, the South is fully awake.

MORE GRASS AND MORE MONEY.

Prof. J.W. Sanborn, Secretary of the Missouri State Board of Agriculture, reporting and commenting upon the condition of the crops in that State, observes that there is manifested a steady determination to reduce the area of wheat and increase that of timothy and clover. This indicates that agriculture in our sister State is progressing, and being brought upon a more satisfactory and intelligent basis. The time may come perhaps in this country when the production of wheat can be made profitable in proportion to the labor and expense required, but that time will not come until the population has so increased as to offer a reliable home market for the entire crop. And while the increase of population is very rapid the area of new lands in the frontier States brought into wheat is so broadened year by year that it will be a long time before America will find herself without a surplus of wheat to sell. So long as there is a surplus to sell there can be no permanent prosperity in the raising of wheat, for the price paid for that surplus will regulate that of the whole crop, and the price of the surplus in turn is determined in distant and open markets, where it must come into competition with the wheat raised in Egypt and India, where labor is worth but a few cents per day and the cost of living a mere bagatelle. It will do very well perhaps for those who can do no better, and the extent to which its area is reduced and grasses substituted indicates how many farmers in a community have acquired the means and possess the intelligence to do better.

More grass means more live stock on the farm, which is in every way a preferable business. It is in proportion to its value produced at less cost, and therefore is affected to a less degree by low prices, and so far as cattle are concerned the country is practically able to consume the whole product, and the small portion sent

abroad does not have its value determined through a competition with the products of semi-barbarous lands. And if the prices at any period should be too low to afford a profit, the farmer knows he sustains no loss, which is more than the grain farmer can claim when he sends away the fertile elements of his soil and secures no adequate return. It comes nearer standing on its own bottom than any other branch of agriculture. Indeed, without it farming would have no permanent bottom on which it could stand at all.

USE OF FERTILIZERS.

J.J.H. Gregory of Marblehead gave an address on fertilizers before the farmer's institute at Bowdoinham, Me., reported in the proceedings of the board of Agriculture of that State. He justly remarked that “if we analyze soils we do not ascertain much; we had better analyze the plants, and let the plants analyze the soil.” The operation of the different elements must be tried on each kind of land. One may contain nitrogen, another phosphoric acid, and the third potash. The one which gives the best result is the one for that particular piece of land. All three together may be best in some cases. Mr. Gregory uses forty or fifty tons of commercial fertilizers in a year. Last year he grew twenty tons of onions entirely by their use, beside less extensive crops of several other vegetables. He recommends the use of these fertilizers, which on his soil are cheaper for what they accomplish than barn manure at eastern prices. The degree of success can be determined only by trial in each locality, and what succeeds in one place may not on another. Seasons do not always produce like results. Hence a single trial will not do from which to form a conclusion. The experiment stations have proved a great safeguard against fraud on farmers.

They have driven out imposters and sustained honest manufacturers. In the South Carolina station 600 specimens were analyzed, and only one found which was a cheat. For a potash fertilizer, hardwood ashes are worth about thirty five-cents a bushel. But there is a great difference in them. If manures do not ferment ashes do not hurt them. Ashes should not be put with hen manure unless it is to be used at once. Muriate of potash is the cheapest

form to buy it, the potash costing about four cents a pound, but in good ashes it costs about seven cents.—*Ex.*

NO GAMBLING—THE GOOD WORK PROSPERS.

For a long time we have labored for this reform in connexion with our Agricultural Fairs. We hope every county organization in our State will follow the example of Harford county, as given below, and exclude all gambling devices from their fair grounds. Is it too much to expect that the year 1886 will see this good work everywhere triumphant? And will not the press throughout the State urge upon our Legislature to pass a law banishing these things from any locality where fairs are held? We copy from the *Baltimore American*:

NO GAMBLING AT THE HARFORD COUNTY FAIR.

BELAIR, January 4.—The annual meeting of the stockholders of the Agricultural Society of Harford county was held in the Court-house at Belair to-day. Garrett Amoss, president; F. W. Baker, secretary. Directors for the ensuing year were elected as follows: J. C. Walsh, B. Frank Hanway, S. Griffith, Davis Johnson, Paca Mitchell, William M. Edelin, James M. Cain, Nathan Grafton, Wm. Baldwin, C. C. Kinsey, Andrew Boyle, Plesley Hopper, and P. C. Lawder. A resolution was adopted, directing the board to exclude gambling and gambling devices from the grounds at the annual exhibition.

"Fearless" Threshing Machine.

We call the attention of farmers and threshermen to the advertisement of the celebrated "Fearless" Threshing Machine, elsewhere in this paper. Unparalleled honors have been bestowed upon this machine, at fairs and exhibitions, State, National and International. And, as equally good and reliable evidences of superiority have been given, by the highest authority, times without number, persons designing to purchase will do well to consult the manufacturer of the "FEARLESS," MINARD HARDER, Cobleskill, N. Y.

LIVE STOCK REGISTER.

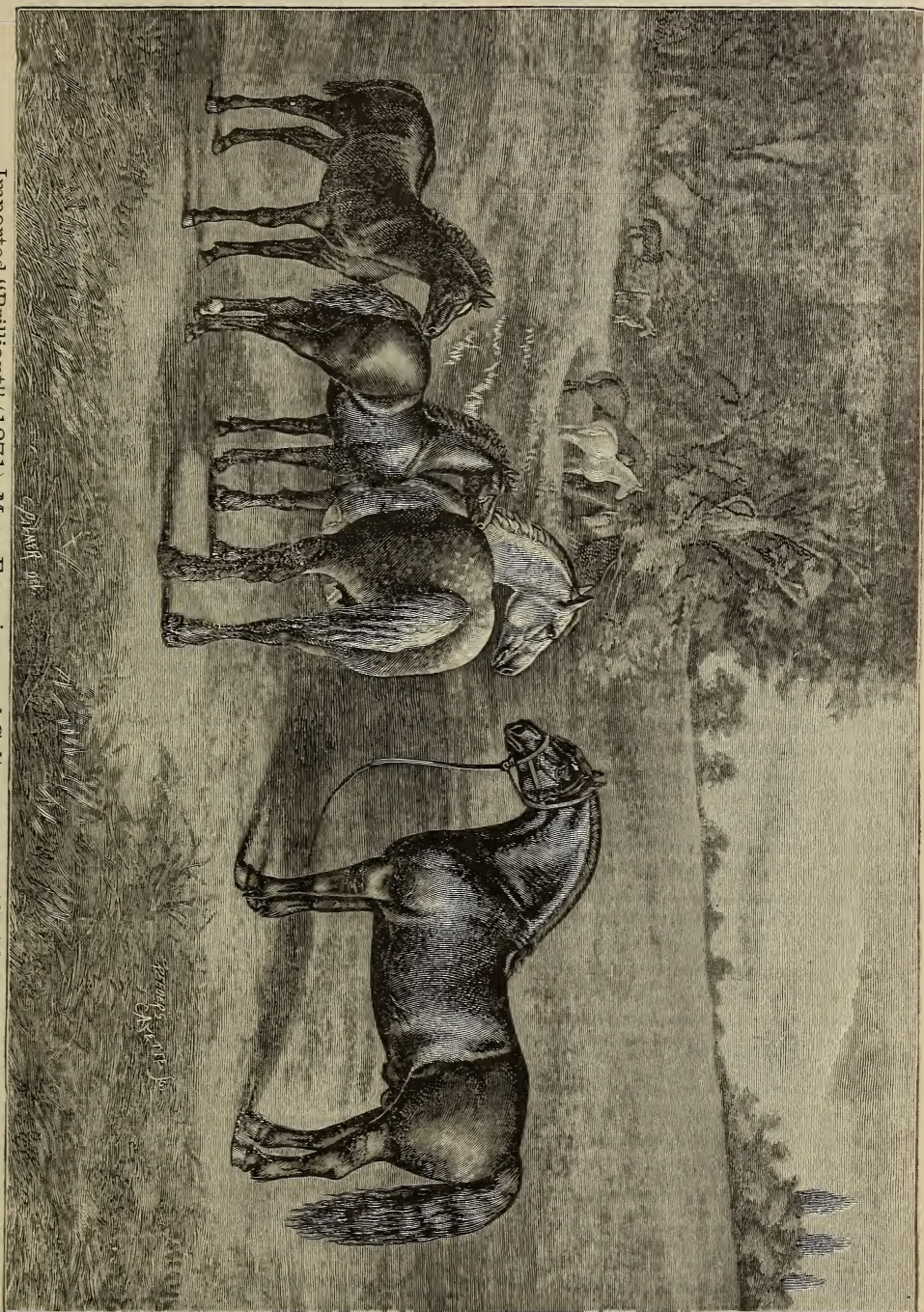
IMPORTED PERCHERON STALLION BRILLIANT (1271).

We with much pleasure present to our readers this month an excellent picture, from the pencil of the well known artist Mr. Cecil Palmer. The picture represents Mr. M. W. Dunham's grand stud "Brilliant" (1871), with mare and colt. The mare shown is "Francisca" (2744), foaled in 1878, and imported by Mr. Dunham. The two colts are the get of "Brilliant;" the one nearest the mare is "Fortuna" (4384), the other colt is "Black Bart" (4259).

The stallion "Brilliant" was imported in August, 1881. He is a coal black, very heavy boned, compactly and powerfully built, and remarkable for his energy and vigor.

The owner of Oakland Farm, Mr. M. W. Dunham, is the largest importer of Percherons in this country, having imported nearly 2,000 choice specimens of the percheron race since 1872. We have lately called the attention of our readers to the importance of breeding horses. The importation of cattle of all kinds has dwindled down to small dimensions, and English breeders often come to this country for additions to their herds. But it is not the case with horses. Although the horse is the farm animal of the greatest value, we are almost dependent upon importations from France, England and Scotland for heavy draught horses. We have all the requisites necessary to produce the finest horses in the world, and why not do it?

THE BULWARK OF HEALTH is *blood*. If this be impure and runs sluggishly through the system, health must be undermined sooner or later. The most perfect renovator that the patient ever yet has tried is VINEGAR BITTERS. It carries off all impurities, enriches the life-giving fluid, restores health and vigor, and is a boon to suffering humanity.



Imported "Brilliant" (1271), Mare Francisca and Colts, property of N. W. DUNHAM, Wayne, Ill.

To the Editor of the Maryland Farmer.

SHELTERING BROOD SOWS.

Fully three-fourths of the pigs produced on our farms are littered in the spring, and the sows to farrow in the spring are now bred. The treatment pregnant sows receive has as much to do with the welfare and profitableness of their pigs as has the blood from which those pigs come, or the food they receive during life. This fact is not well understood; or, if understood, is ignored. It is a fact, nevertheless. As important a part as any, if not the most important of all, of this treatment, is sheltering. It is the common practice to allow the pregnant sows to run with the herd, and share the common shelter. This is very injudicious, to say the least. The sows should always be isolated, or put in lots of three at most, to avoid the injury to them arising from crowding and overheating.

Hogs in herds, especially in the winter, "pile up." There is a continual struggle. Some are covered up and all are squeezed. The horizontal pressure is well nigh crushing, and this may be reinforced by the weight of a hog's body above. The farrows and sterile sows may escape injury; but the pregnant sows are almost sure to receive some hurt, frequently serious. Nor does the evil stop with them; it extends to their offspring. The crushing force brought against the mother's sides is often sufficient to prove fatal to the pigs, and they are still born. The injury the sow receives occasionally results in death at farrowing; and often farrowing is rendered so difficult that the exertions of the sow greatly reduce her in flesh and stop thrift for weeks. Careful observation, designed towards this point, has convinced me that while still-born pigs may be traced to other causes, allowing the pregnant sows to run with the herd, and especially in the common shelter, is responsible for more still-born pigs than all other causes combined.

As already stated, another evil resulting from the pregnant sows going to the common shelter, is the over heating of the sows. The body and habits of the hog differ from those of any other farm animal. Its body is fatty and compact, and provided with a thin natural covering of such a nature that, aside from its thinness, it retards very little the escape of bodily heat; and

the hog lies as close to its fellows as it can possibly get. When a considerable number are allowed to occupy one shelter, on account of their bodily formation and their extremely sociable habits, they become overheated. Where the bodies are in contact, every pore is opened wide. As a result, when the animals rush out into the cold air, they are rapidly chilled; a happening to which the thin covering of coarse hair opposes but little resistance. The blood, drawn in unusual quantities toward the surface, is rapidly driven inward, producing congestion, the ultimate effects of which are coughs, cold, catarrhal, bronchial and pulmonary troubles. All the hogs suffer; but on account of their condition, the pregnant sows suffer most. Fully eighty per cent. of the deaths among swine in the late winter and early spring—often seasons of serious loss in the swine lot—are due to this overheating in the shelter. Some of the pregnant sows may escape death at this time; but when their pigs are littered, it is evident that they have partaken of the injury to the mother and are much less able to stand it. Within a week they will begin to cough, cease to thrive, and soon die. Possibly the disease will not manifest itself till fall; but the symptoms are then just the same and the result is as certain.

Hogs in herds should rarely have litter. I doubt if they ever should have litter in a shelter that will keep off rain and snow, and break the force of the wind. But sows isolated—as pregnant sows should be—ought to have a moderate amount of litter. And by all means do not allow the sows access to the common shelter. Put them in lots of three at the most, and give each lot a shelter.

Quincy, Ill.

J. M. S.

LAST spring's calves that are to be wintered will need some looking after and extra feed at this time. The calf's first winter is a critical time in its history. Many calves become so stunted at this time that they never attain full size, and their value through life is lessened.

HORSE breeding in France is not a success. Breeders are particular about the stallion; but pay no attention to the points of the mare.

To the Editor of the Maryland Farmer.

COSTLY APPETITES.

"My cattle are doing finely this cold weather," says Farmer Brown, "even though their stables are not as warm as they might be, and they stand out in the bleak winds and snows much of the time. See what appetites they have when they are put up and fed."

Appetites they have indeed, but did Farmer Brown, or any one else, ever think that by thus eating so vigorously the stock were simply using the means at their disposal in trying to keep up animal warmth. It is not that they are extraordinary strong and vigorous that they eat so well, but that they are compelled to keep up the internal fires that give heat or animal warmth, which must be first provided for before any growth or fattening or milk production can take place.

It is false economy to allow the stables to be open to piercing winds and penetrating snows, during winter, or to allow stock to lie down in their stalls without bedding, or to be improvident with any requisites for keeping warmth in the body and cold out. Whatever the lack in this direction, it must be made up in extra feeding which is costly where the herd is large. Ten pounds per day extra, of any kind of or of all kinds, to each animal amounts to no inconsiderable quantity, and consequent value, in a herd of fifty cows, more or less. We are to bear in mind that this extra feed goes not to make milk, or flesh, but simply to make good what has been lost by the continual wear of the animal system. Shelter is less expensive than food in the long run.

N. Y.

J. W. D.

A Michigan farmer uses a novel mode of eradicating thistles. It consists of placing salt upon them when young, when sheep will gnaw them close to the ground. If they start again renew the operation. Another mode is to wait until they are well grown and the stalks are hollow, and then cut them just before a rain or shower. The stalks fill with water, causing the decay of the root.

Don't let your stock run out any great length of time during cold days. They will shiver the flesh off faster than hay or corn stalks will put it on.

THE DAIRY.

THE STYLE OF CHURN.

The style of churn does not have as much to do in bringing butter perfectly, as the manner of caring for the cream, and the way of churning. There are a great many different churns, some good, some poor, but with the best out most inferior butter can be made if the condition of the cream is not right, and the working of the churn is not as it should be.

The true idea is to get all the butter out of the cream. The revolving churn is very popular, but in some hands it would be an absolute failure. The true principle in churning is to have the agitation of the cream as near as possible like the motion of concussion, that is, a pouring performance. As the barrel churn is revolved slowly, the cream is precipitated first against one end of the churn, and then against the other, and the friction produced will not break the globules of butter, they simply rub against each other, and are not broken or flattened by the floats, or dasher striking the bottom of the churn at each plunge.

With these churns the cream should be what is known as ripe, just a discernable acidity. If very sour the cream is thick, and the rolling motion only slides the cream, and perfect churning is impossible. Cream to churn perfectly should be a pronounced fluid in character, not heavy and thick. Cream for churning,—when there is not a churning from each skimming—should be thoroughly mixed and stirred frequently, and kept quite warm for a few hours before putting into the churn, else the different ages and conditions will cause imperfect separation of the butter. With the revolving churns only cream to about one-third of their capacity should be put into them, for if they are filled too full there can be no thorough falling motion, and with the float churn, when full; the

floats *wallow* in the cream and produce very little agitation. Perfect churning implies far more in the preparation of the cream, and the manner of working the churn, than in any patent or systems of improvements exhibited in the mechanism of the churn.

HINTS ON CHEESE MAKING.

The following is a paper read before the New York State Agricultural Society by George A. Bonfoy, of Herkimer county, New York:

To establish one set of rules for making cheese from all conditions of milk, would be like recommending one remedy for all diseases of the human system. The quality of the milk is very easily influenced by surrounding circumstances, both natural and unnatural, therefore, the rule that would be beneficial to one kind of milk would be detrimental to another.

I have adopted a few rules, that I use in nearly all cases, for making full-cream cheese.

First, warm the milk gradually to 83° in warm weather, and 85° or 86° in cold, using enough of sweet, water-soaked rennet to coagulate in thirty-five or forty minutes, then cutting lengthwise and crosswise, letting it settle until the curd has entirely disappeared, after which stir and cut carefully to the desired fineness, stirring and warming to 98° or 100°, being governed by the keeping quality of the milk as to the length of time for heating. If the milk is sweet and the curd cooks slow, then heat slow; but if it cooks fast, then heat fast.

The one-year-old cheese that took the prize at the New York state fair last fall was made from full-cream milk and in the usual way, with the exception that it was salted $3\frac{3}{4}$ pounds of salt to the 1,000 pounds of milk, instead of $2\frac{1}{2}$; the curd was very fine-flavored, well cooked and about one-half inch acid, and was not cheddared.

Where the curds are well cooked, are free and not inclined to settle together, and sweet flavored, I do not always consider it necessary to cheddar.

It is sometimes difficult to know just when to salt and press the curd. We have to be governed by the condition of the curd,

and whether it is intended for home trade or for shipping.

A great deal depends on having good milk to make good cheese.

Too much pains cannot be taken by patrons in the care of milk.

I find from personal experience and observation that there is a great difference in localities as to the quality of milk.

Where cows feed on wet, swampy lands, producing wild grasses, and have poor water to drink, the milk, when made into cheese, will be spongy and difficult to cook, of an offensive flavor, and when aggravated by tainted milk the curd will float on the surface of the whey.

I know of no better way to manage such curds than to heat them in the usual way, and as soon as the acid begins to develop, draw the whey, pack the curd, keep it warm, and if it turns spongy and full of pin-holes, then let it lie until a sufficient amount of acid has developed that when ground and pressed the pin-holes will have entirely disappeared. I have let such curds string from the hot iron five inches without any injury to the cheese.

Such cheese when cured will be firm, meaty, of good texture and fine-flavored.

Where cows feed on uplands, have tame grasses to eat and running water to drink, the milk will be of better quality, and when heated will cook easier and be better flavored. Such curds do not require as much acid as the lowland milk.

I am very much in favor of cheddaring cheese, especially in warm weather, for in our factory system, where we get a mixture of all kinds of milk, I consider it safer to draw the whey and let the acid develop on the dry curd; it takes the cheese a little longer to cure, but when cured the flavor is more durable.

One mistake some of our factory men are making is to make their cheese to cure too quickly.

The object is to get the cheese on the market as soon as possible, so as to save care and shrinkage, and that the patrons may get the proceeds sooner. These are good arguments in favor of quick curing.

Such cheese soon gets sharp and off flavor and depreciates in value, bringing a loss to the dealer, dissatisfaction to the customer, and a loss of our reputation abroad for the production of good cheese. Cheese buyers are discriminating more

closely now than in times past between good and poor cheese. This we hope may be an inducement to produce a better article, for good cheese always finds ready sale at good prices.

WATER THE STOCK IN WINTER.

While farm animals do not require so large a quantity of water in February as in August, during winter, when the air is frosty and all their food is dry, their thirst is often as intense as during the hottest part of summer, when their food is green, and to fail to supply them with all the water they care to drink at this season, is both unwise and cruel. It is an opinion entertained by not a few, and an opinion no less hurtful in its nature as it is surprising that it should yet exist, that farm animals need very little water in winter. That while snow is on the ground they need not be given water at all, and if there is no snow watering them once per day will suffice. To compel animals to lick snow is a costly cruelty. Snow only aggravates thirst. This any reader can prove to his own satisfaction by making a personal test of the matter. He will find that the more snow he eats the greater is his craving for water. Animals compelled to lick snow can not thrive. They will lose flesh, their hides become rough and their hair stand the wrong way. This is because they are not properly nourished. Water is essential to the digestion of food, and its proper assimilation. The need of it to aid in the digestion of food is greatest in winter, when that food is dry. To fail to provide farm animals with water at this season is to destroy all chances of profitable growth. It is taking money out of your pocket.

It is but little better to give animals water of a freezing temperature. This chills the stomach and for some time stops the process of digestion almost altogether. It chills and shocks the animal, in this

way also contributing to unthrift. For this reason it is very rarely good policy to give cattle water from pools or ponds in winter. Provide them with water from a well, which will be of a wholesome temperature. This is some labor, and disagreeable labor when the weather is cold; but it would be hard to find labor more profitable—giving a larger income in dollars and cents.

A law passed by the last New York Legislature declares that "milk drawn from cows within fifteen days before and five days after parturition, or from animals fed on distillery waste, or any substance in the state of putrefaction or fermentation, or upon any unhealthy food whatever, shall be declared unclean, impure, unhealthy and unwholesome milk. Dairymen should remember that a well fed cow is a different animal in many respects from a thin cow. And this difference is never more apparent or important than at the time of calving. A cow in poor condition needs rest for two or three months, and there is little danger of inflammation of the udder unless she is highly fed. But a cow that has been kept in a high condition is no doubt safer if milked all the time till she calves. If the milking is stopped while she is giving a good flow it makes a change in the system which, added to the change in the increasing inflammation resulting from her condition, is apt to make trouble and end in milk fever.

Nine Ways to Commit Suicide.

1. Wear narrow thin shoes.
2. Wear a "snug" corset.
3. Sit up in hot, unventilated rooms till midnight.
4. Sleep on feathers in a small, close room.
5. Eat rich food rapidly and at irregular times.
6. Use coffee, tea, spirits and tobacco.
7. Stuff yourself with cake, confectionery and sweetmeats, and swallow a few patent medicines to get rid of them.
8. Marry a fashionable wife and live beyond your income.
9. Employ a fashionable and needy doctor to attend you in every slight ailment.—*Dio Lewis' "Nuggets."*

EARLY SCARLET GLOBE RADISH.

For several years we have been testing, in various ways, a variety of Radish which we can now state has proved itself the most valuable of any we know for early forcing. It is oval in form, as shown in the accompanying engraving, of a brilliant scarlet color, has a small amount of foliage, and will stand hard forcing without becoming pithy. In quality it is crisp, tender, excellent. We can recommend it without reservation.

Radish forcing can be commenced in the spring, in frames, as early as a steady heat can be maintained in the beds or in pits, heated with a flow of hot water, whenever desired. A heat of 55° to 65° is necessary. At night, coverings of mats will greatly prevent the loss of heat.

In sowing, enough seed should be used to have the plants stand only an inch or two apart, or if they come up thicker the young plants can be thinned out to this distance, and afterwards further thinned by pulling for use. Light waterings should be given, as needed, and air should be admitted every day when the weather is favorable. The first pulling can commence usually in about six weeks after sowing.

We are indebted to Mr. James Vick, the well known seedsman, of Rochester, N. Y., for the accompanying cut and description.



To the Editor of the Maryland Farmer.

FRUIT GROWING CULTIVATION.

The enthusiastic fruit grower who goes to great trouble and expense to get his place down in fruits of different kinds, and thinks that preparing the land and setting out is all that is necessary, commits a blunder for which he has ample time to repent later on. But can any one be so foolish? may be asked by some. We will not have to travel far to find such. When we pass farms upon which fruit trees have been planted, which are having a battle with grass, weeds, drought and neglect, we see fruit growing in the hands of such a one. Or his berry patches smothered in weeds or clover, so that passers by

can't make out which is which; then we will be able to form an idea of the danger of too much theory and enthusiasm, without sufficient energy and common sense sufficient to back up successful fruit growing. I know of one who went into fruit growing in order to get out of hard work and be able to live easier. He informed me later on that he found it jumping into work instead. Being of a practical turn of mind he met the matter squarely and now finds it his chief delight in giving his trees and vines the high culture so essential to success.

That "eternal vigilance is the price of success" is shown as surely in fruit growing as in any other calling I know of. Young trees for instance require constant

and clean culture during the growing season until able to care for themselves. The peach is an exception inasmuch that it requires constant cultivation throughout its usually short life. Apple, pear and cherry trees will do well in a sod when well grown towards maturity, but not sooner. My experience has been, that even when in good sod, liberal manuring must be resorted to in order to make up for lack of stirring the soil. There is quite a difference of opinion as to the depth to which orchards may be cultivated, but it has long been settled in my own mind that it should be *very* shallow, not over four or five inches at best. Not long since I had occasion to plow an apple orchard which had been in grass for some time. I found it almost impossible to plow it at all, owing to the roots having come to the surface in search of food. Liberal top dressing with manure of some kind would no doubt have been better treatment. I have come to the conclusion that for an orchard of any kind that has come into bearing, a good scarrifying harrow run through each way every ten days throughout the spring and summer, is the best tool with which to cultivate.—Thorough culture is as necessary for the small as for the larger fruits. Strawberry patches need to be kept clear of weeds and grass as long as profitable crops are looked for. Raspberries and grapes need such thorough cultivation that weeds and grass are discouraged from putting in an appearance. The knife and shears play an important part also in the growing of both vines and trees. The last, but not least to be mentioned is liberal manuring. Many a fruit grower has found to his sorrow that the land had to be made rich after the crop was planted, because the soil lacked enough naturally to perfect the crop.

ARUNDEL.

Make Your Plans.

Now plan out your work for the coming season. What crops turned you the most money during the past year? Can you increase that crop during the coming year? Prepare to do it in an understanding way. If any crop cost more than it brought you, that is the crop to cut down.

POULTRY HOUSE.

CHICKENS IN FEBRUARY.

BY EXPERIENCE.

This is a cold month and the chickens should receive more than usual care. If possible hasten the departure of the snow from the chicken yards. The sooner they can get to the ground the better. On the mild days open the houses and make the most of the fresh air and the sunlight. It is at this time that attention is especially required, and the real work is to be done in the way of care for the stock. Every day examine your houses and see that no glass is broken; that no boards are loose; that no holes are in the roof; that no hinges are gone from the doors; that the fastenings are all right; that the roosts are in good order; that the nest boxes are clean; that the nest eggs are not missing; that no vermin are about; that no chickens are sick; that the floor is dry; that there is plenty of litter of leaves, corn husks, clover heads, dry weeds and the like; that the drink is supplied fresh and often; that the oyster shell and gravel boxes are kept full and the contents loosened up properly; that the dust bin has plenty of coal ashes, renewed constantly, and is in prime condition; that there is no chance for the entrance of enemies, such as cats, rats, weasels, etc.; that the fences are in good order; and, in fact, that everything is comfortable and snug so far as you can make it for your chickens. This should be a part of your daily work and never on any account neglected.

Then your attention should also be given to the food, of which a variety should, if possible, be provided. The morning feed should be a warm mess of soft food, corn meal and wheat bran mixed with boiled potatoes, turnips or carrots mashed and fed quite dry and as hot as possible. Give with this occasionally raw onions chopped fine; and at all times supply as much green vegetable matter as may be convenient, and some weeds and pounded bones. Scatter wheat, oats, or barley among the litter, and at night give whole corn. This is considerable work; but it is not hard, fatiguing work. It is such work as will amply pay for itself.

If you wish very early spring chickens

for market, this month is the time for setting your hens for that purpose. But it is a very trying month for the poultryman. The very closest attention must be given, and every convenience for the care and comfort of small chicks must be had to make it a success. Even then, February chicks are so much like a lottery, that I have seldom advised any extended trial of them. The early pullets of last spring will have laid their first litter of eggs, and will be broody; but it is best to break them up, for they will seldom persevere. Put them in a coop, with a slat floor a foot or more above the ground, and with a roost, also; feed them lightly, and in two or three days they will come out all right. Hens, two years old next spring, will set well and will be faithful in their care of the eggs. It is also important that the eggs you give these hens should have been selected from your best stock, handled carefully and kept in a cool place, but not exposed to the slightest frost.

When the chicks are hatched, do not disturb them for thirty-six hours. The mother hen will keep them warm, and the feathers will dry properly, and the chicks be more apt to thrive. These chicks should grow rapidly and will be ready for market, when they will bring the very highest price. Nevertheless, it will pay you to save some of the very best specimens of these, for their value next autumn and winter will be much greater than any later broods.

Chickens, hatched in February, should bring a high price, for they must have a great amount of extra care, and are the survivors representing broods that have in good part perished.

A Comparison.

The average yield of wheat in Great Britain is 29 bushels per acre; while the average in the United States is only 13 bushels per acre. But what is worse, the average in Great Britain is increasing year by year, while in the United States it is scarcely holding its own. There is room yet for a large improvement in our methods of wheat culture, the preparation of wheat lands, and the general attention to details of seed and seed sowing.

THE AMERICAN AGRICULTURAL ASSOCIATION.

The Sixth Annual National Agricultural Convention of the American Agricultural Association will be held at the Grand Central Hotel, New York, February 16th, 17th, 18th, 1886. All interested in Agriculture and kindred pursuits are invited to attend and participate in the proceedings. Addresses will be delivered and papers read by the leading thinkers and writers on Agriculture, Live Stock, Dairying, Ensilage, and other practical subjects, and there will be open discussion of each by the members.

The Conventions of this Association have been the most important gatherings in connection with agriculture held in America, and have been participated in by the leading men in public and private life. Three have been held in New York, one in Chicago, and one in New Orleans, and great and interesting as they were, this will doubtless surpass them all in attraction and value.

The Convention, under the auspices of the National Dairymen's Protective Association for the suppression of Oleomargarine, Butterine, and other frauds upon the Dairy, will be held at the same time and place. Your respectfully,

N. T. SPRAGUE, President.

Jos. H. REALL, Secretary,
169 Chambers St., New York.

INTERNATIONAL EDITORIAL ASSOCIATION OF AMERICA.

The Executive Committee of the above named Association, organized on the 19th and 20th days of February, 1885, at New Orleans, Louisiana, have fixed the place of the next meeting at Cincinnati, Ohio, on the 23d, 24th and 25th days of February, A. D. 1886. The membership of such Association is made to include "any person who is a member of the Editorial Association of any State, province or nation of North America, or a properly accredited Representative of such Association," but it has been thought best that each State Association, in order to make the Association truly representative in character, be asked to appoint and send, at least, one delegate for each twenty members, or fractional part thereof, of

such Association, or one from each congressional district of each State of the United States and two at large, from each State or Territory.

These delegates should be named by the President of the Association, the President acting as one of the delegates at large. Of course all other members of Associations will be welcomed to the meeting of the Association at Cincinnati, but it is hoped that every State will be represented by the full number of delegates, suggested. This meeting will be for business and discussions, for devising methods for advancing the interests of the press, especially for the upbuilding of the country press of America, and the making more efficient all the State and Provincial Associations. A definite program has not yet been arranged, but will consist of business usual to such organizations, and of discussions. It is also proposed to incorporate the Association at this meeting.

The following are among the topics which have already been named for discussion at the next meeting:

Regulation of Foreign Advertising—Agencies and Prices.

Uniformity of Type Bodies on the Part of all Foundries.

The Editorial.

The Local.

The Subscription List.

Ethics of Advertising.

The Press as an Educator—its Responsibility for the Moral Status of the Reading World.

The International Association.

Rights of Newspaper Publishers.

Journalistic Education.

It is recommended that the Secretary of each Association arrange immediately for transportation for the delegates from his Association. It is thought that the railroads will readily accord free transportation for any reasonable number of delegates and representatives from each State and Territory.

It is proposed, at the close of the meeting of the Association in Cincinnati, to indulge in an excursion to Washington City. It is also suggested that those editors from the North who intend to visit New Orleans during the winter or spring could so plan as to take this meeting in on their way going or returning, though it

is hoped, that this meeting of the Association will be so important, pleasant and useful, as to make it well worth a trip across the continent. The first object of the Association is business, the adoption of practical plans, and acting thereon.

OFFICERS: President—B. B. Herbert, Minnesota; 1st Vice-President—C. H. Jones, Florida; Secretary—John G. Elliott, Texas; Treasurer—Ezra Whitman, Maryland.

EXECUTIVE COMMITTEE: J. R. Bettis, Arkansas; H. A. Castle, Minnesota; Chas. A. Lee, Rhode Island; J. B. Stanley, Alabama; E. D. Coe, Wisconsin.

Address, B. B. HERBERT, President of International Editorial Association, Red Wing, Minnesota.

ED.] We are in hearty sympathy with this organization, and think it will be a source of much benefit as well as enjoyment to the Editorial fraternity. We hope the press of our State will take an early opportunity to notice this meeting, and that the necessary steps for representation in its body be taken at once.

WHEN MANURES PAY BEST.

Rich dirt, and all well rotted manure may be applied with perfect safety and good results at planting time in spring. So may lime, plaster, ashes, salt, and the like, be put on them as well as at any other season, and some of them with better results than at any other period of the year.

But it is now generally acknowledged that coarse manure, straw, and stock-pen manure mixed with litter and bedding, is best applied the previous fall and winter. When scattered broadcast over the surface, and allowed to lie all winter to decompose and mingle with the soil, the distribution is more perfect, more of the strength of the manure gets into the land, and the benefit to the crop the first season is greater. It is our practice to commence in the fall as soon as the crops are removed, to haul on litter, and such animal manures as have accumulated during the summer, and spread it evenly and thickly over the

surface. Whether the land is plowed during fall or winter, or whether it remains unbroken till the spring, the material is there, rotting and mingling with the soil, and adding more strength than it could possibly do if the application were delayed till spring.

All winter crops—wheat, rye, oats, grass—are greatly benefited by heavy applications of course manure made during the fall, winter, or early spring. The mulch is a protection from the cold, and, if it is stock-pen manure, the fertility it imparts gives the crop a fine start off early in the season. Both the crop and the soil are benefited, the latter more than the former, perhaps.

We should say, then, that all coarse, home-made manures pay best, if applied during the winter or very early in the spring.

We do not believe manure of any kind loses much by evaporation, and none by washing, unless the water flows off the soil before the little atoms of fertility can settle to the ground. The winter is the time to apply all but concentrated manures. The reasons for this are voluminous.

EDITORIAL BRIEFS.

Horses and Fire.

It is said that experiments have shown that, in case of fire, horses may be led out of the stable without any trouble, by merely throwing the harness loosely over them. If this fact was generally known, many horses might be saved, which are now usually left to perish.

Good Farming.

Make the largest possible profit on the smallest number of acres, and with the least outlay of money, and we will call it "good farming."

The Two Great Wants.

Two things are all that is needed to bless the tiller of the soil. Freedom from weeds, and an abundance of fertility. These only require patience and labor.

Labor to destroy the weeds, patience to grow and turn under green crops for fertilizing purposes. The western lands, which bear such abundant crops for 20 or 30 years in succession, have their abounding fertility from this source, in the slow process of annual decay. The intelligent Farmer can imitate this, and, in a couple of years, by turning under crops, give permanent fertility to his land.

Grow Small Fruit.

Some people prefer to grow their own fruit, even if they know it costs them more to grow it, than to buy it in open market. We are of this number. We enjoy the satisfaction more even than the fruit. We become very observant of every flavor it possesses, its freshness, its delicate aroma. It is ours. Our hands have worked there; our eyes have watched there; we have cultivated and worked the plants, and perhaps picked the fruit. We enjoy it better. We believe every one who would do these things, would get nearer to nature, and be more of a child than ever, and, like a child, more richly enjoy the products of his own garden.

Agricultural Implements.

Are the agricultural implements on the farm all in perfect order? Are they properly sheltered and cared for? Do you know that when needed, you will find them ready for immediate use? Have you all the implements you will need for your coming spring and summer work? These are questions every Farmer should be able to answer satisfactorily. If you cannot, this month is the proper time to look after these things. The success of your year may possibly turn on the neglect, or the attention, you have bestowed upon your tools. The Farmer's tools are far too costly to be allowed to become worthless by rust and exposure; and he, who would turn his cents into dollars, should provide such implements as will make his work a pleasure instead of a burden.

A Proposal.

How shall we enrich our land? This is the all important question with every Farmer who owns his farm. This year place some of your fertilizer on land devoted to clover, as a trial; when ready to cut for hay, turn it under. Then sow buckwheat, and in the fall when in full growth turn that under. You have now a piece of land free from weeds and rich enough to produce a good crop of anything desired by you. Next year treat another piece of your farm in the same way. The cost per acre of such fertilizing is but a trifle, and it is thorough.

Thorough Work.

Have you ever observed that Farmers, who have made money by their farm produce, have always been those devoted to thorough cultivation of their soil. They have had no patience with slovenly methods of work, careless plowing, half way weeding, and general neglect of the proper time of caring for crops. Their money has come from attention to every department, and seeing that all is well done.

The Farmer Talented.

A successful Farmer must necessarily be an intelligent and a talented man. By this we do not mean that he must be skilled in mathematics, in general book learning, in Latin and Greek, in the way of schools; but he must be a person of close observation, of an intelligent comprehension of the principles of cause and effect, quick to understand the meaning of things, and apt to apply means to certain ends. Thick headed men cannot make successful Farmers.

What to Sell.

It is the best policy of the thoughtful Farmer to consume on his farm as much of his hay and grain as possible, and to sell his produce in live stock, on their feet. In selling thus, he should always keep for his own use the very best of his young stock. As years go by, he will in

this way greatly enrich his acres, and at the same time have greatly improved stock to show to his friends, and to gratify his own heart.

Large Egg Figures.

Why is it that we import so many millions of Eggs from other and less favored countries? Simply because we fail to see that dollars are made up of cents, and that an egg is at least a cent. We fail to give the proper and necessary attention to our poultry, and these cents are sent to Canada, or to Europe, and the eggs brought from a distance, instead of being raised at home. When we get them thus, they are necessarily stale, compared with those raised by our own people. We can hardly believe the published statements, that \$2,000,000 worth of eggs came to the United States from Canada during last year.

A person who goes into the poultry business should not expect to realize a living profit from it for two or three years. It is that kind of a business which requires time to perfect it, patience, constant attention and a great amount of light labor.

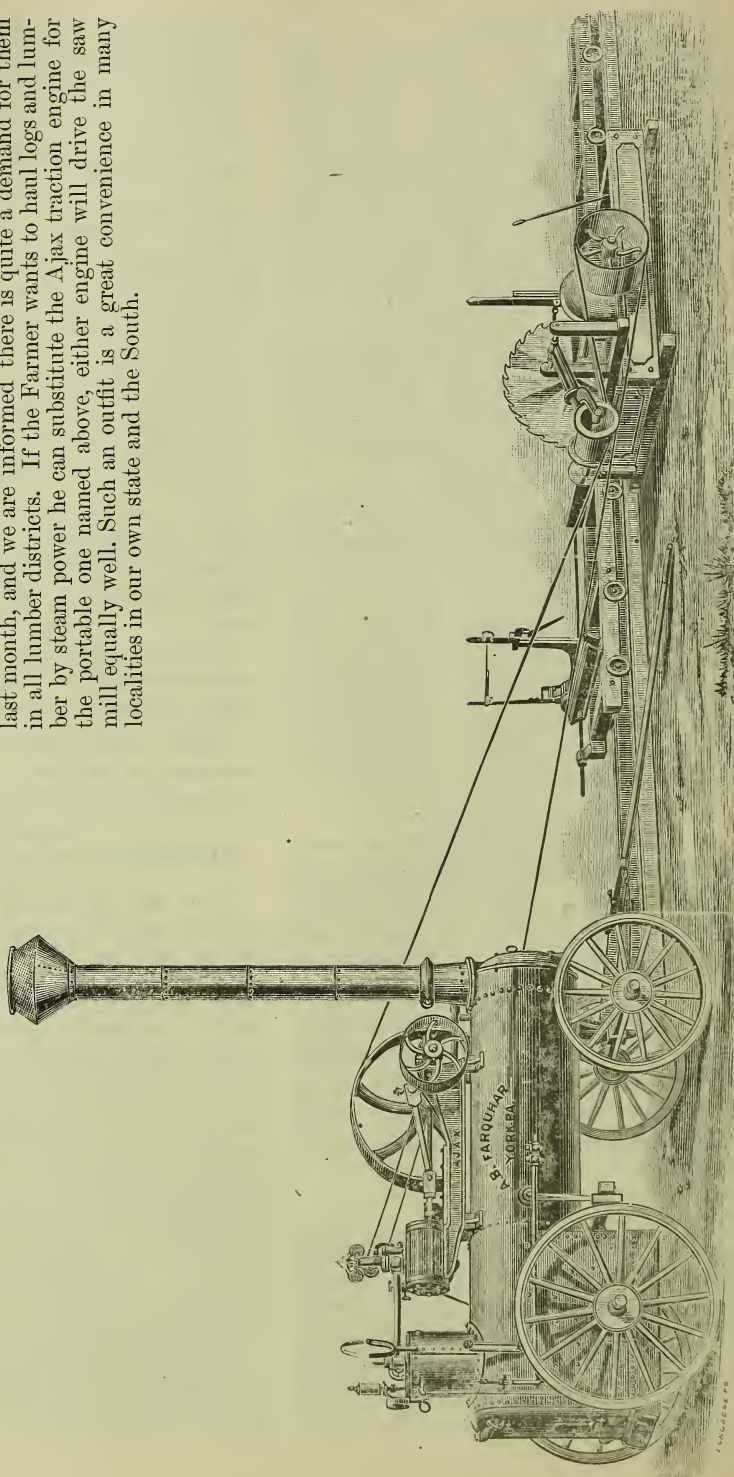
MISSISSIPPI A. & M. COLLEGE.

A few days ago we met Gen. Lee, President of the Mississippi A. & M. College, and he informed us there were over 290 students in the Dormitory; about 50 outsiders will run the list up to 340. He tells us that the Dormitory is crowded to its full capacity and that he is turning off from 5 to 6 applications (Mississippi boys) per day. He has within the past four months refused admittance to 100 students from other States. He showed us a letter he had just received from a South Carolina Congressman pleading for admittance to the College of his son. Of course he will be refused, as Mississippi boys have the preference; besides the College is full and, *running over*, and even Mississippi boys in large numbers cannot secure admittance.

It is hoped that the Legislature, will see to it that ample dormitory room be provided. We hope for a liberal appropriation for this special purpose. E. M.

FARQUHAR'S PORTABLE ENGINE AND SAW MILL.

The cut on this page represents Mr. Farquhar's improved saw mill with Ajax portable left hand engine, making a complete movable outfit, and we would recommend it to any one contemplating going into the sawing of lumber. E. Whitman, Sons & Co., furnished one of the above outfits to one of their customers last month, and we are informed there is quite a demand for them in all lumber districts. If the Farmer wants to haul logs and lumber by steam power he can substitute the Ajax traction engine for the portable one named above, either engine will drive the saw mill equally well. Such an outfit is a great convenience in many localities in our own state and the South.



Farquhar's Portable Engine and Saw Mill.

FARMERS' CONVENTION.

Agreeable to notice through city and country papers of Maryland, there was quite a large gathering, January 13th and 14th, at Pythian Hall, Baltimore, of many of the best men in the State interested in Agriculture. The convention was presided over by Ex-Governor Wm. T. Hamilton, and no better man could have been selected. On taking the chair Gov. Hamilton in a short and interesting speech referred to the unfavorable year which had just passed, but said that the outlook for the farmer was much more encouraging. There had been, he said, an increase in exports of more than 2,000,000 bushels of wheat over 1884; the increase in the exports of corn, sugar and other products had also been great; the only thing in which there appeared to be a falling off was beef. The Governor said that the farmers had permitted their expenditures to be too big. "What we want," he continued, "is good government, low taxation and economy in our individual affairs. These are the secret of success."

The first business in order was the appointing of a Committee on Credentials, the delegates who were entitled to seats were from 69 Granges in the State and County Agricultural Associations, were also allowed the privilege of sending delegates. The State Agricultural Society, the State Live Stock Association and the State Agricultural College were not allowed delegates under the call; but with some opposition they were finally admitted, after the committee on Credentials reported, the following were among the business resolutions offered, some of which were referred to committees, some adopted, and others laid over for want of time to act upon them. A constitution and by-laws were adopted and committees were appointed; the election of officers was held and the former ones re-elected for the present year.

RESOLUTIONS.

T. A. Seth suggested in a resolution, by request of the president, that a special committee of five be appointed to consider

the subject of farm leases, looking to an improvement in the present system and the elevation of the tenantry classes. Adopted.

A resolution was offered by H. C. Hal- lowell, reciting, as Pres. Cleveland had said, that the Farmer bore an unjust proportion of the taxes, and asking for a special committee from the legislature to consider the whole subject of taxation.

The committee also reported favorably on the resolution to ask the legislature to establish an Experimental Agricultural Station, and suggested that it be located at the Maryland Agricultural College.

EXPERIMENT STATION COMMITTEE.

Col. H. Kyd Douglas moved the appointment of a committee on establishing an Experiment Station in Maryland, which was adopted, and the following committee appointed: H. Kyd Douglas, Washington co.; C. Lyon Rogers, Baltimore; Dr. R. C. Mackall, Cecil; Robert Hutton, Montgomery; Springfield Baldwin, Anne Arundel.

On motion of Mr. Patterson, the Maryland State Agricultural and Mechanical Society, and the Live Stock Breeders' Association were allowed representatives. It was proposed to allow the State Agricultural College, also, to have a delegate. Adopted.

On motion of Dr. Mackall, Mr. J. Augustine Smith, president of the Maryland State Agricultural College, was allowed all the privileges of the convention, except the right to vote. Mr. Smith addressed the convention at length on the State College.

THE TOBACCO QUESTION.

Dr. Waring, of Prince George's, offered a resolution, providing that the convention adopt the resolution passed by the tobacco growers' convention on Wednesday.

Col. Legg protested against the attempt Farmers were making from the parts of the State which are not interested in the tobacco business, and do not know anything about it. He thought the matter ought to be left to the tobacco growers. If the convention passes resolutions of the kind offered, and attempts to regulate things of which they know nothing, the influence of the association would go for nothing. He was supported by a representative from the tobacco-growing district,

who stated that they did not want any such law. Upon motion of Col. Legg, the resolutions were indefinitely postponed.

George E. Silver, of Harford, moved that formation of Farmers' clubs, and auxiliary Farmers' associations in every county of the State is urged on the members of this body.

PLEURO-PNEUMONIA.

Among the resolutions offered and referred to the committee on resolutions was one offered by T. A. Seth, of Baltimore county, for Col. Edward Lloyd, of Talbot:

COL. ALLAN, OF M'DONOUGH.

Col. Wm. Allan, of the McDonough School, was then invited to address the convention. The subject of his address was the meaning and purposes of an experimental Station. He stated that there existed very indefinite ideas as to the purposes and scope of an Agricultural Experimental Station. The first one was organized about thirty-five years ago in Germany. Now there are about one hundred such stations in Germany. He gave some interesting results of their practical working, and showed the advantages that such an institution would have for Maryland Farmers. Col. Allan expressed his high appreciation of and sympathy with Prof. Augustin J. Smith in his efforts to raise the Maryland Agricultural College. He hoped that Col. Smith would succeed, and thought he would. He strongly advised; in conclusion, that the experimental station be harmoniously supported.

A letter was read from Mr. Norman J. Colman, United States commissioner, who was to have delivered an address before the convention, regretting his inability to be present.

Just before its adjournment, Prest. Smith made some excellent general remarks in reference to the College. He said that the funds expended in preliminary work were by no means expended in vain; that it was absolutely necessary to explore this new field, and the same experience was had by all other Agricultural Colleges in our country, many of them having expended much larger sums than this one before they were enabled to enter fully upon their legitimate work. The College is now well equipped with all needed apparatus, specimens, models, maps, etc.,

and only needs the funds and the co-operative sympathy of the people to insure its permanent success, and that of an Experimental Station. He said there seemed to be no issue as to the importance of having the Station. The only question was where that Station should be. Those who opposed the College as a fit place for it had advanced no better reason than that the work of an Experiment Station and that of the Agricultural Colleges were wholly dissimilar and should be kept apart. They also claimed that the Stations, so far established in this country, were not at the Colleges, and this fact was sufficient to divorce them forever. He said, "I respectfully, but emphatically deny the tenability of the statements made, either as to facts, argument, or conclusions. The fact is, the chartered design of all the agricultural colleges is to do all the work needed by agriculture, whether scientific or practical, and is intended to embrace just such work as is performed at what are termed Experimental Stations. In other words, they are *Experimental Stations*. The colleges of California, Kansas, Iowa, Maine, Michigan and New Jersey, (and others might be added) pride themselves upon their experiment work, and it is the earnest desire of all the colleges to do this work thoroughly. They have asked, and the Agricultural Department at Washington has asked Congress to appropriate fifteen thousand dollars annually to the Colleges for this purpose. To my mind, no better place for all kind of work connected with agricultural education can be found than the Agricultural College where the young men are pursuing their studies for the purpose of becoming Farmers. Surely, there can be no objection to these young men witnessing the experiment work which is the basis of their science and art. As to the Maryland Agricultural College, it is in a fairly prosperous condition this year. Its privileges are now within reach of the public schools of the State. Each county, by appointment of their School Commissions, has the right to two scholarships at one-half the usual cost, and under this arrangement a class of excellent young men is secured and the future prosperity of the College established. As to the assertion, that the College has had sufficient means to do the work demanded

and has wantonly wasted it, a just investigation of the facts will disprove this. It is true, that the State has given that institution for its educational work within the past twenty-five years, about \$120,000, and it is equally true, that in the education of twelve hundred or more pupils during that time, it has received a full equivalent for that expenditure. Will any fair-minded man contend that for this amount, scattered over a quarter of a century, the work of an Experiment Station in addition should have been done, solving all the problems of the Farmers of Maryland? Those who would think so, know not of what they judge. One energetic Station would expend this whole amount in one year. A number of them spend a fourth of it. Experimentation in agricultural science is expensive, and it takes more nerve than Farmers generally possess to determine to spend what is necessary to do justice to their industry and to place it in a remunerative position. The fact is, our College has received little or nothing comparatively. Observe what the colleges in other States annually received. Arkansas \$25,000, Colorado \$20,000, Illinois \$42,000, Iowa \$41,000, Kentucky (by special tax) \$16,000, Massachusetts \$24,000, North Carolina \$12,500, Michigan \$67,000, and as much more as is needed to meet deficiency, Mississippi \$60,000, Pennsylvania \$30,000. To all these must be added the amount derived from the U. S. Government. So you see, the so much abused Maryland College has received little or nothing. Has the time not come when the Farmers of Maryland should do justice to their College and rebuke that spirit of misrepresentation which seeks to destroy its usefulness?

ED.] We are heartily in favor of farmers' meetings and our views will be more fully seen in the first article of this number; but if farmers' meetings are held in the interest of any one particular class of farmers, or for the benefit of a few individuals, the general interest to farmers will be limited.

We have a State Agricultural Society who should arrange for such meetings, appointing the time, place and the subjects to be discussed, the management to be under the Executive Committee of this

Society. These meetings to be held monthly, perhaps, during the winter, or as often as the Ex. Com. should deem advisable, then let invitations be general to all farmers in the State and to all interested in Agriculture. No time need be taken up in examining credentials, but farmer-like, at once go to work, each giving his experience and discussing subjects that will be of vital importance to all.

To the Editor of Maryland Farmer.

SUPPLYING POTASH.

How to supply potash to the growing crops often puzzles the Farmer who must depend solely or in good part upon commercial fertilizers. While few crops require potash in a quantity as large as some other elements of plant food, it is essential to their growth and is so often lacking, in sufficient quantities in the soil, that it is one of the most important elements to be given to farm crops. And to supply it is often difficult. Superphosphate provides an easy means of supplying phosphoric acid, and as economical as it is easy. Gypsum readily supplies the crops with sulphate of ammonia (yielding the much needed nitrogen) and lime. But among the commoner fertilizers, ashes is the only one containing a considerable per cent of potash. In all the other commercial fertilizers, commonly used, potash is only an accident. Unfortunately the supply of ashes is limited, and frequently inadequate to afford the potash needed.

A commercial fertilizer which, on account of its ability to provide the crop with this much needed element, should have a much larger use than it has had, is German kainit. It is a natural product, dug from the earth, as its name indicates, in Germany. Its mining and preparation are both easy and cheap, and it can be put in any of our Atlantic seaports for eight dollars per ton. It contains twenty-five per cent of sulphate of potash and fourteen per cent of sulphate of magnesia. This fits it especially for many of the farm crops of both North and South. Though clover contains a larger per cent of nitrogen than almost any other farm crop, it has been found that it has little need of

nitrogenous manures, on account of its unusual ability to gather and appropriate nitrogen. The two elements which this very important crop most needs are potash and lime. Gypsum furnishes the lime, and at the same time all the nitrogen (not contained in it, but gathered by it) that the clover will need. German kainit is just the fertilizer needed to supply the potash. The five elements needed in a manure for cotton are nitrogen, phosphoric acid, lime, potash and magnesia. Gypsum will furnish the nitrogen and lime, and superphosphate the phosphoric acid, readily and economically; and kainit will furnish the two other elements, otherwise so hard to get—potash and magnesia. Tobacco needs above all else potash; and kainit furnishes the best means of supplying this element to the tobacco crop. A certain quantity of potash is absolutely essential to the profitable growth of sugar cane. However, too much depreciates the quality of the cane. Kainit will prove a valuable fertilizer for this crop, but not more than two hundred pounds per acre of it should ever be applied. As a consequence of its containing so large a percentage of potash—usually an element of plant food exceedingly difficult to supply in sufficient quantities,—the use of German kainit is to be recommended to the use of every Farmer. J. M. S.

FERTILIZERS.

A successful Farmer is generally known by the condition of his land. Kind of implements employed and quality of fertilizer used, for on these and especially the latter his success or failure depends.

The free use of rich plant food, which can be found in well prepared high grade phosphates, which is now recognized as very important to the production of paying crops, and the manufacturer that supplies a reliable manure is a benefactor of the farming community and worthy of the patronage of the people.

The time has come when farmers must rely chiefly upon the standing of the manufacturer for the quality of their manures, as nothing but the guarantee of a responsible manufacturer furnishes protection against the different form of deception to which they are exposed. Among our re-

liable manufacturers and dealers in Bone Phosphates and Guano, stands the firm of L. N. & J. S. Hopkins, of this city, and their extensive connections with the leading business interests of Baltimore is ample proof of the high standing in which the gentlemen of this firm are held. As manufacturers and importers their facilities are such as to supply their goods at bottom prices.

Mr. R. D. Bradley, Marine Bank² building, 25 S. Gay Street, is general agent for the sale of their fertilizers, and our readers would do well to give³ him a call, see advertisement on page 4.

To the Editor of the Maryland Farmer.

FARMERS' FARE.

It is really astonishing that so many Farmers will persist in living so plainly, even miserly, in regard to their daily food. One would think that those who produce the food of the world, and have the first handling of it and the chance of getting the pick of everything if they choose, would themselves feast constantly on the fat of the land. Such, however, is far from being the case, as a rule. On the contrary, most Farmers seem to regard such things as lamb, chicken, butter, eggs, veal, honey, and the pick of the fruit and vegetables, as too good for themselves or their families to partake of. Accordingly, all these articles are sold, and corn bread, fried bacon, and the poorest of the fruit and vegetables, and weak coffee without sugar or milk, constitute the main elements of the Farmer's bill of fare. This fare is cheap, it is true, and may be healthful at certain seasons, but man's physical nature and want call for an occasional change of diet, and there are times when eggs, milk, honey, and nice fruits and vegetables are necessary, and cheaper really than fried pork and hot coffee.

The Farmer is entitled to the best by which we mean the most wholesome, refreshing and invigorating—and he ought not to stint himself of it. The Farmer who does so is robbing himself to better others. This is more than Christian law requires of him. The Farmer should live well, and he may do so without being in the least extravagant or gluttonous. His first object in all his labor should be, to

supply the home want. He farms first for himself, for his family's support, and not money, but a good and economical living is the thing to be kept in view. Dare, then, to enjoy the fruit of your labors, and let the world take what is left them.

B. W. J.

SANDY SPRING CONVENTION.

On January 7th, many Farmers of Montgomery and Howard counties, assembled at the Lyceum at Sandy Spring. Representative men from Prince George's, Harford and other places were present. Among them, were Ex-Gov. Hamilton, Dr. Hardey, Johns Janney, Messrs. Silver, Cassard, Dr. Holmes, and others.

The President, Henry C. Hallowell, opened the meeting with a few remarks drawing attention to the widely increased interest in Agriculture as evidenced by the experiments and researches of eminent men. He drew attention to the effort being made to produce a cross between wheat and rye that should yield a grain having the best qualities of each; also, to the possibility of inoculating cattle against rabies and pleuro-pneumonia.

CREAMERY.

Henry H. Miller, from the Committee on Creameries, read an interesting report, the substance of which was that while it would perhaps be profitable here, as it is said to be in other places, there was not sufficient certainty as yet to justify the necessary outlay.

AGRICULTURAL EXPERIMENTAL STATIONS.

Benjamin H. Miller, offered a resolution which was adopted, directing the delegates to the Farmers' Association to bring the subject of establishing experimental stations in this State before that body, and suggesting that the legislature be memorialized with regard to it.

REVIVAL OF PROSPERITY.

To the question "what will cause a revival of prosperity to agriculture," close attention was given, but no "royal road" pointed out. Gov. Hamilton thought the trouble this year was from overproduction. A revival of manufacturing would aid in this respect. Dr. Chas. Farquhar thought more attention should be given to raising

fruit. Francis Miller suggested new industries such as making sugar from the sugar beet, &c.

The reports of local clubs were received. The Farmers' Club, The Enterprise Club, and The Montgomery Club. These are interesting reports but want of space will not allow us to use them.

Ed] The report on creameries we think unfortunate; and would be reversed, if all the facts and advantages could be known by the Farmers of Montgomery. We have long been in favor of establishing these creameries in Maryland, and can but regret that so desirable an industry should get an unfavorable report from this convention.

This "Revival of Prosperity" is a theme of which no one wearies.

The first thing is that the Farmer must not look to some distant object for this "revival of prosperity;" for it depends upon himself. He is the party who must bring this "revival," and no one else can do it for him.

In the present day it is the active intelligent mind that rules in all affairs, and as soon as the Farmer uses his brains, as much as he now uses his muscles, the "revival" will come.

Back of all crops, back of all markets, back of all stock raising, we must look to the Farmer's cultivation of the spirit of progress in himself, if we would have a real "revival" of prosperity. And the way to secure this is to make use of every means in his power intelligently and constantly.

They should become familiar with all the agricultural experiments bearing upon this work, and be prepared to farm understandingly.

The Farmers should keep themselves well posted by the use of agricultural papers. He who is well read up as to the best methods of work; as to the best implements for accomplishing the work in the most economical and easy way; as to the best fer-

tilizers to be used on the various crops and the best application of the same, is sure to be at the front, and to secure all the advantages possible, for a revival of prosperity to agriculture.

OUR STATE AGRICULTURAL COLLEGE.

Gentlemen of the Legislature:

It is most proper that a few of the facts in connection with the Agricultural College of this State should be set before you, and we earnestly desire that they be considered and given all the weight in your deliberations that the subject deserves. We trust you will not be influenced by any misrepresentation; any personal interests of friends, or any local prejudices; but will act for the general welfare of this institution and the great class of our citizen farmers whom it was designed to benefit.

We would remind you that the Maryland Agricultural College is under the management of a Board of Trustees, a majority of whom are State Officers, and who hold their position on the Board by virtue of being State Officers. It is therefore a State Institution, and should be the object of your especial care.

While the College has had opposers, who oppose where they cannot rule, it has also had its warm and earnest friends. The Calverts, the McHenrys, the Earles and the Merrymans, and a host of others, may be mentioned as among Maryland's large souled and liberal farmers, who have contributed in cash and bountiful gifts nearly as much as has been received from the State. The trustees, also, on the part of the stockholders, have contributed many thousands of dollars towards the support of the College, by not drawing pay for their attendance, some of them having contributed their entire pay for nearly twenty years.

These men have done their work cheerfully and freely, without grumbling; for they realize the great work this College is

destined to perform for the farmers of Maryland, when it shall be placed by the liberality of its legislators on the same footing as those of other States. Those who have never contributed a mill to its support are loudest in fault-finding, and most ready with misrepresentation.

The facts are these: The Maryland Agricultural College has received, during twenty-five years, about \$120,000, from the appropriations of the State Legislatures. The Michigan College received in ONE YEAR \$67,000. Many other of the State Agricultural Colleges, which are most efficient for good, receive each year from \$30,000 to \$60,000. Among these are Pennsylvania, Illinois, Iowa and Mississippi. Others receive from their States, from \$12,500 to \$25,000, each year. TO BRING THE MARYLAND COLLEGE TO A REASONABLE POSITION OF USEFULNESS, IT SHOULD RECEIVE A LIBERAL APPROPRIATION FROM THE STATE.

In this connection, we quote a few lines from the last message of the Governor of Massachusetts, referring to the Agricultural College of that State. He says, it "is advancing in development and success. There is throughout the State a better appreciation of its work. In number of students, in merit of scholarship, and in greater breadth in the course of study, the College is yielding more abundant return."

These remarks of the Governor of Massachusetts will apply equally well to any Agricultural College in the country.

The College has at present all the necessary advantages of farm lands, and all the facilities in apparatus, needed for extensive experiments; and with but a trifling cost, compared with any other location, it could be made as fine an Experimental Station as is to be found in the United States. The Farmers' Convention, composed of Representative men from all sections of the State, recently in session in the city of Baltimore, in their report in favor of the establish-

ment of an Experimental Station, very thoughtfully added that it should be located at the State Agricultural College. This is the proper place for it. It is a central location. It becomes a practical exemplification to the students of the farmers' work; and, at the same time, it can answer from actual experience the various questions which the farmer desires most to have solved.

It is the earnest hope of many of Maryland's most eminent men, that the Agricultural College shall receive from the present Legislature ample aid to enable it to work as its founders designed. It is also their expressed desire that an Experiment Station, with suitable appropriation, be connected with the College. These eminent men, as well as the vast body of farmers, who make up the great majority of our people, are looking to their legislators for these appropriations. We hope they will not be disappointed.

To the Editor of the Maryland Farmer.

PULVERIZED OYSTER SHELLS.

The white mantel dropped on the 8th still covers the earth, protecting the wheat from the cold North winds; and from it the soil is absorbing the elements of plant food brought down in the falling snow. The carbonic acid and ammonia, or nitric acid, in all soils containing the proper quantity of carbonaceous matter, (humus, &c.) they will be retained for the growing season. It would be hard to calculate the value of such a fall of snow, especially when falling on an unfrozen surface of porous soil. The immovable or fixed elements of the soil have important duties to perform, but the movable ones found in the air have a far more important one; for the great agents of life—starch, sugar, gluten and cellulose—are supplied from the inorganic kingdom, brought to them by the moving air and water; and when the fixed are not found in the soil they must be supplied by human power. Hence the importance of knowing just what is needed without the expense of a complete fertilizer. The application of ground carbonate of lime, the effect of which

you so plainly saw a month after its application, continued its good effect during the past season, and the spot where applied will be watched with interest during the coming one. If fine ground lime stone or oyster shells will answer the purpose of caustic or burnt lime, a great point will be gained in agriculture, as it can be drilled or spread with so little labor and expense, compared with spreading the ordinary lime. That it will, I feel well assured from my own experiments as well as from many others who have used it. Sir J. B. Lawes writes me that he has seen like results from the use of chalk, another form of carbonate of lime; and testimony coming from him has great weight with the writer, knowing how much of his time and means have been spent in the cause of agricultural advancement.

At this point it may be proper to refer to an important, interesting and valuable process to be seen in Baltimore, by which shells can be rapidly and cheaply reduced to an insipid powder, without the slow and expensive process of grinding with burr stones. From a steam boiler, under a pressure of 150 pounds per inch, the steam is conducted by two pipes directly opposite each other in an iron chamber. The shells or any other hard mineral matter is passed from another large chamber, a funnel, between the two jets of steam, which, acting like two sledge hammers, moving with the velocity of a cannon ball, crushing the shells to a dust, which is carried up into a chamber in a dry state and is at once ready for bagging and sale. In burning lime nearly one-half is lost by the escape of the carbonic acid, which is driven off by the great heat employed for the purpose.

In spreading caustic lime this carbonic acid is rapidly absorbed again from the air and soon passes to its original or normal condition of a carbonate. This may be the true explanation of the action of lime on decaying vegetable matter, which is always found to contain an organic acid which is not decomposed by the lime, as is so often stated by writers on agriculture; but on the contrary the lime is decomposed by this organic acid stepping in and taking the place of the carbonic acid, which is set free, and mingled with the soil, clay and other mineral and organic matters found in all fertile soils.

I might repeat that carbonic acid is the great agent from which all plants obtain their carbon, or charcoal, and the question with the writer is, whether they get it through the roots, or does it all come through the leaves, as is claimed by science? In the mountains of the North, the first warm days of March will start the maple juice long before a leaf will show itself. That this sugar was formed the previous season and was stored up in the roots during the long winter months, does not appear clear to my mind. If it was not, and is organized by the roots, then it is possible to explain the action of lime to a certain extent in furnishing the abundance of carbonic acid found in all soils of a porous nature, and where there is a rank growth of vegetation.

The foundation of all vegetable life is sugar or starch; and this is nothing but the elements of carbonic acid and water transformed by plants into organic matter, on its road to animal organization. Hence it is important to look after the big fish as well as the little spawn called nitrogen, which has cost our farmers millions of dollars.

A. P. S.

Rock Hall, Md.

BOOKS, CATALOGUES, &c., RECEIVED.

SILK CULTURE, a Handbook for silk growers from Orange Judd Co., N. Y. A small pamphlet of 32 pages full of information on this subject.

VICK'S HOLIDAY number of Magazine and Floral Guide combined, is a delight to our eyes, as well as one of the best volumes for the use of the lovers of plants and flowers. Vick's Floral Guide for 1886 contains interesting reading matter, among which are articles on Roses, House Plants, Cheap Greenhouse, followed by 150 pages containing illustrations, descriptions, and prices of seemingly everything the heart could desire in the line of Seeds, Plants, Bulbs, &c. It is a mystery how this firm can afford to publish, and really give away, this beautiful work of nearly 200 pages of finest paper, with hundreds of illustrations and two fine Colored Plates, all enclosed in an elegant cover. Any one desiring goods in this line cannot do better than send 10 cents for the Floral Guide, to James Vick, Seedsman, Rochester, N. Y. Deduct the 10 cents from first order sent for seeds.

Catalogue of Registered Jersey Cattle, from Co-operative Stock Farm, Fredericksburg, Va.

Landreth's Seed Catalogue for 1886, Philadelphia. As complete and useful as ever.

Vilmorin-Andrieux & Co.'s Seed List. Paris and London, wholesale only.

FREE QUILL.—We have read with a great deal of enjoyment this new paper from Laurel. It is fully awake and will make its mark. We welcome Bro. Clarke's paper to our list of country exchanges, and like his blue flag and its maker, "long may she wave." Weekly \$1 a year.

The Michigan Horticulturist, edited by Chas. W. Garfield, a 32 page monthly, well filled with interesting articles, and at the popular price of \$1 per year. Detroit, Mich.

Horticultural Art Journal.—Mensing & Stecker, Rochester, N. Y. Vol. 1, No. 1—a finely printed and beautifully illustrated publication. Its colored plates are superb, and worth more than the price of subscription, \$3 per year.

Smith's Diagram of Parliamentary Rules and Key, by Uriah Smith. Address, Battle Creek, Mich. Price 50 cents.

Trade Seed List.—F. A. Haage, Jr., Erfurt, Prussia. A full list of flower, garden, field and tree seeds.

Burpee's Farm Annual 1886 received. It is a very handsome catalogue of farm and flower seeds and will be sent free to all applicants who address Walter Burpee & Co., Philadelphia.

Sun Almanac for 1886.—Well-filled with such information as will make it a source of reference during the entire year.

Calendar, N. W. Ayer & Son, Philadelphia, Pa. One of the best and cleanest we have met, for office or counting room, well worth the slight price to cover postage and first cost, 25 cents.

The Calendar of W. H. Butler, Philadelphia, Pa., is one of the prettiest specimens we have met this year. Lithograph adds to its beauty.

The stamping outfit of the World Manufacturing Co., 122 Nassau Street, N. Y., received. Just the need of our lady readers.

Gregory's Retail Catalogue of Seeds for 1886. Send to Marblehead, Mass., and procure one, if you need anything in this line, sent free.

CAULIFLOWER, by Francis Brill.—We have this pamphlet, which is a complete treatise on the subject, commencing with the preparation of the soil, sowing of seed, proper cultivation, care from the depredation of insects, and closing with the best methods of cooking.—We can supply them at 20 cts. each.

We have just received a copy of Number 26 of Ogilvie's Popular Reading, containing twelve stories—all complete.—The price is only 30 cts. and is for sale by all newsdealers, or will be sent by mail, post paid, on receipt of price, by J. S. Ogilvie & Co., Publishers, 31 Rose Street, New York.

Among the many Trade Marks which have been brought to our notice, none to our mind is more striking or suggestive of the business it heralds than that of Messrs. LORD & THOMAS, the well-known Advertising Agents of Chicago.

CEMENT, LIME, SALT, &c.

One of the oldest and most reliable houses in the above line, is that of Messrs Wm. Wirt Clarke & Son, office 61 S. Gay St. Established in 1867.

Their Hydraulic Lime is a valuable addition to our building material. It is claimed to set like cement, and grow in hardness till in thirty days it equals American cement, and at the end of a year equals Portland cement. It is hardened by heat and by dampness, buildings erected entirely of this mortar are durable. In case of fire there are no falling walls. A building can be made perfectly fire proof by using it. It is one of the most valuable additions to builders material.

This firm handles the best grade of goods, and enjoys the confidence of their customers. Dealing with a reliable house is a matter of importance to the Farmer who may otherwise lose the reward of his labors. We take pleasure in recommending the specialties offered by this firm. They can load vessels and canal boats direct from their warehouses. Circulars can be obtained by writing or calling at the office. See advertisement in this number.

THE I. X. L. WIND MILL.

It is said that a wind mill or engine will continue to work at least 300 out of the 365 days of the year, the cost is so trifling as to make it by far the cheapest motive power known. The I. X. L. Wind Mill, Messrs Malvin B. Shurtz & Co., Agents, Baltimore, for lightness, simplicity, durability and economy is thought superior to others. One gentleman writes to say that in eight years work, the wind mill has not cost quite \$1 in repairs. In the West these wind mills are appreciated at their true value. A correspondent from that section in writing says he can count nineteen wind mills at work from his farm. They will pump water, or they will drive the thresh-

ing machine, grinding mill, or can be applied to any kind of circular motion.

JUDSON DYNAMITE.

NEW WAY TO CLEAR LAND OF STUMPS, STONES AND TREES.

The Judson Dynamite which is advertised on page 36 of this number is being used quite successfully for this purpose. A correspondent in the Farmer for Nov. last, gives an excellent account of a trial made upon his farm on the Eastern Shore of Maryland, which was a great success, and we hear good reports from it in all sections.

MONEY MADE EASY.

Any person having a few days that he can devote to procuring subscriptions to the MARYLAND FARMER can make \$10, by getting forty subscribers. This number can be obtained in almost any locality in Maryland and the Southern States. Those undertaking it and not succeeding in procuring the 40 subscribers will be paid in proportion to number of subscribers they get. The advertised premiums will be given to the subscriber the same as if he subscribed at our office.

Received of Peter Henderson & Son, New York, their beautiful Catalogue, encased in a fine linen cover, containing 140 pages. It is filled with everything for the garden and contains many new varieties of garden and flower seeds.

J. M. Thorburn & Son, New York, Annual descriptive Catalogues, filled with every variety of seeds for the vegetable garden, and also for the farm and nursery.

Machine Pulverized Oyster Shells, see advertisement on 2d page of guide, a description of the process may be learned by reading the letter of A. P. S. in this number.

SUPPLEMENT FOR MARYLAND FARMER.

FRIENDLY WORDS TO THE MARYLAND FARMER.

The many and very favorable notices we have received from the press—a few of which we publish;—and the very many kind words we have had in letters from our subscribers, have been a source of much gratification to us. We send to all our hearty thanks, and give to each one our wishes for prosperity and happiness.

The “Maryland Farmer” comes to us for January, greatly improved in every respect. The title page is a gem of beauty, within is a rich storehouse filled with elegant matter. The “Maryland Farmer” is the pride of Maryland Farmers. Being the only live Agricultural Journal in our State, and equal to any in the country, should have as it richly deserved a large line of readers.—*Balto. and Woodberry News.*

The Maryland Farmer, of which Ezra Whitman is editor, began its 23d volume with 1886. It celebrated the event by coming out in a new dress of type, printed on nice paper and with the daintiest cover with which an agricultural magazine was ever blest. The Farmer has long been one of the best of its class of periodicals and at the extremely low price at which it is offered, \$1.00 a year, should be, if it is not, in the home of every Farmer in the State where it is printed to say nothing of its being a good thing for every Farmer in the country to have. Success to friend Whitman in all his efforts to furnish the people of his adopted State with a first-class agricultural journal.—*Winthrop Budget.*

The old and well-known *Maryland Farmer* starts the year, and the beginning of the twenty-third volume, much improved in its make-up. It has a stylish new cover, is printed on fine book paper, with a new outfit of type, and looks as sprightly as a yearling colt. The *Farmer* is a valuable agricultural monthly, and

should have a wide circulation.—*Manufacturer's Record, Balto.*

The Maryland Farmer comes to us in a new dress and cover. The reading matter is well selected. On page 13 is a handsome design for window garden for flowers, this alone is worth the price of a sample copy. Published by Ezra Whitman, Baltimore, Md. \$1.00 a year.—*Queenstown News.*

The Maryland Farmer signalized its entrance upon its twenty-third year by appearing this month in most elegant and convenient shape, printed on the best quality of paper from clear, new type. It is an excellent agricultural journal, and especially valuable to Southern Farmers.—*Clarksville, Tenn., Tobacco Leaf.*

The Maryland Farmer, a monthly magazine of thirty-two pages, devoted to agricultural and kindred subjects, is upon our table. It is a handsome and valuable book and should be a monthly visitor to every farm house in the land. Price one dollar per year. Address Ezra Whitman, publisher, Baltimore city, Md.—*Williamsport, Md., Leader.*

The Maryland Farmer, one of the best agricultural journals of the State, reached us last week. It is greatly improved in many ways, having a new cover, new type and a better quality of paper. Its selections and original matter is well worth reading.—*Calvert Journal.*

The *Maryland Farmer* comes to us in a new dress of exquisite design. Mr. Ezra Whitman, the editor, can be justly proud of his most excellent publication.—*Rural Record.*

The *Maryland Farmer*, so long and favorably known to the agriculturalists of Maryland, commences the new year and twenty-third volume in a greatly improved appearance—new and handsome cover, and printed from new type on excellent paper. It is a good farm journal.—*Baltimore county Democrat.*

RENEWING ITS YOUTH.—The veteran agricultural magazine, the *Maryland Farmer*, which has for years past been published in Baltimore by Ezra Whitman, commenced its 23d volume with the new year. It celebrates its birthday by appearing in an entire new dress of type, etc., even its gilt edged cover has been discarded and an extremely chaste and delicate one been substituted. It is a wonderful improvement and, combined with the heavy calendar paper now used, makes the *Farmer* a beautiful specimen of typographical art. The subject matter of this number is in keeping with its rich cover. Every Maryland farmer should take a pride in supporting a journal which for nearly a quarter of a century has been striving to build up the agricultural interests of the State. It is a surprise to us how such a magazine can be published for \$1 per year.—*Marlboro' Gazette*.

The *Maryland Farmer*, published monthly by Ezra Whitman, Baltimore, Md., for one dollar per year, is on our table. After careful examination we pronounce it one of Maryland's best publications for home reading, especially useful to Farmers.—*Electric Light, Harre de Grace*.

The *Maryland Farmer* commences the new year with an attractive new cover and a beautiful new dress. It is also printed on super-calendered paper. Mr. Ezra Whitman, the editor and proprietor, is to be congratulated upon his success.—*Baltimorean*.

MARYLAND FARMER.—This excellent agricultural journal, published by Ezra Whitman, of Baltimore, comes to us this week much improved in general appearance, and as usual, is filled with useful and important information to agriculturists. On January the first, the publication of the twenty-third volume commenced.—*Frederick Citizen*.

The *Maryland Farmer* commenced the new year and a new volume, the 23d, much improved in appearance. It has a handsome new cover and is printed from new type on fine heavy paper, on which the illustrations show to the greatest advantage. The *Maryland Farmer* is issued monthly and is edited and published by Ezra Whitman, at the low price of \$1 a year.—*Egys and Intelligencer*.

Subscribers to the *Maryland Farmer* will scarcely recognize the old journal in its new cover and type. The January number is beautifully printed, on fine paper and larger type, and its contents are of interest to all. The articles of our middle State agricultural journals are better suited to our mode of farming than northern or western, because they are from the practical men of this section, who better understand our system of husbandry.—*Democratic Advocate*.

IN A NEW DRESS.—The *Maryland Farmer*, Ezra Whitman, editor and proprietor, commenced its XXIII volume by appearing in a new dress of type, cover, &c., which adds greatly to its typographical appearance, and is a decided improvement over its previous issues.—*Maryland Journal, Towsontown*.

The *Maryland Farmer* for January appears with a beautifully unbelished cover, and is printed with new type on heavy calendered paper and is a gem in its line of work. The contents are of high interest to the farmer, the domestic circle and others. Published by Ezra Whitman, Baltimore, at \$1 a year.—*Emmitsburg Chronicle*.

The "Maryland Farmer" comes to us looking as bright as a new dollar. It is one of our best agricultural exchanges and is well worth the subscription price to any farmer. It is only one dollar a year.—*The Ishmaelite, Sparta, Ga*.

The *Maryland Farmer*, published in Baltimore, Maryland, by Ezra Whitman, has just reached its twenty-third birthday and celebrates the occasion in a new dress of new type and cover, printed on sixty pound paper and is laden with able and instructive articles, interesting to Farmers. The subscription price is \$1 per annum.—*Saturday Review, Roanoke, Va*.

The *Maryland Farmer*, Ezra Whitman editor and proprietor, entered upon its XXIII volume by appearing in a new dress of type, cover, &c., which adds greatly to its typographical appearance. We congratulate the *Farmer* on its good looks and the improvements over its previous issues.—*Frederick Examiner*.

THE "MARYLAND FARMER"

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Live Stock and Rural Economy,

Oldest Agricultural Journal in Maryland and
for ten years the only one.

EZRA WHITMAN, Editor and Proprietor.

141 WEST PRATT STREET,

BALTIMORE, MD.

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
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
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 Special rates for cover pages.

Transient Advertisements payable in advance.

 Advertisements to secure insertion in the ensuing month should be sent in by the 20th of the month.

The Maryland Farmer, the live agricultural journal of the State, came to us last week highly improved in many ways. The Farmer has treated itself to a new cover, new type and an improved quality of paper. A large part of each department is occupied by original matter, well worth reading.—*Centerville Observer*.

The *Maryland Farmer*, Ezra Whitman Baltimore, Md., comes out in a new dress for the New Year and an entertain-

ing table of contents. Every Maryland Farmer should subscribe for it. It is a dollar a year well invested.—*Easton Ledger*.

The Maryland Farmer celebrated the new year by donning a new and very handsome dress, which makes it look very young; but it still has all the wisdom of advanced age and ripe experience. The price is only \$1 a year, which places it within easy reach of every Farmer. Address Ezra Whitman, editor and publisher, Baltimore, Md.—*Nelson Examiner*, Va.

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